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HISTORY
OF
MEDIÆVAL ART

BY
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TRANSLATED
BY
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WITH 422 ILLUSTRATIONS AND A GLOSSARY OF TECHNICAL TERMS

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HISTORY
OF
MEDICAL ART

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JOSEPH THACHER CLARK

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INTRODUCTION.

As it has been set forth in the preceding volume, the art of antiquity was divided into groups, corresponding to the various nationalities: so separated that a decided dependence of one upon the other was seldom brought about, and even more rarely maintained. The ethnographical character, language, religion, and culture of the Mesopotamians differed entirely from those of the Egyptians, and both were altogether opposed to those of the Hellenes. The architecture of each of the groups thus formed was dissimilar in general arrangement, as well as in details; their sculpture and painting were as unlike in ideals and subjects as in types.

The fundamental differences between these groups were much more marked than were the differences which resulted in any one of them through the most long-continued development. Recent discoveries in Chaldea have shown that the art of the Upper Tigris, during the eighth century B. C., was directly founded upon that which had been practised more than three thousand years before in Lower Mesopotamia. Still more uniform was the culture and art of the Egyptians,—from the age of the Pyramids, or at least from that of Rameses, to the invasion of Egypt by the Persians. Even the Greeks,—a race infinitely more capable of development,—retained the same principles and forms in their architecture from the archaic temples of Sicily and Ionia to the buildings of the Alexandrian epoch, and in their sculpture preserved the elements of the same national art from the groups of Ægina to the frieze of Pergamon,—exhibiting in both branches a character altogether distinct from that of the Oriental nations. Indeed, the essential characteristics of Hellenic art remained unaltered even after Greece had lost her political independence. For as the Ptolemies, unable to Hellenize Egypt, themselves became Egyptian, and as the Seleucidæ, at least on the Euphrates, furthered the civilization of Nebuchad-

nezzar and Darius, rather than that of Alexander, so also did Greece maintain its peculiar culture long after the catastrophes of Chaironeia and Kynoskephalai.

The art of Greece deservedly became of greater importance than did that of the Oriental nations,—its influence being extended throughout all Europe, and indeed never altogether lost, down to the present day. Greek civilization, in its further extension, first manifested its supremacy among the Romans, who had incorporated European and Asiatic Hellas into their vast empire. This was a success of Greek principles far surpassing that brought about by the conquests of Alexander, although the spread of Hellenism had been greatly furthered by him and his successors. For while the culture of the Greeks had no permanence in the Oriental provinces of the Diadochi, because of the entire dissimilarity of races and conceptions, its character, predominantly European, found in the Eastern and Western Empires all circumstances favorable to its expansion and to its maintenance. It was neither necessary nor desirable for Roman imperialism, tolerant as it was, to make such concessions in religious, administrative, and social respects as had been forced upon the Diadochi. Thus it was not during the age of Alexander, but after the establishment of the Roman power, that Hellenism became truly international.

Mediæval art was the direct outgrowth of this Roman Hellenism. The chief differences were in the subjects represented, these being naturally in accordance with the requirements of the early Christian communities; in regard to form and method art remained classic for many centuries, the decadence steadily continuing. Thus early Christian art in the western provinces of the Empire, and particularly in Italy and the countries dependent upon it, may in all respects be considered as a debasement of the Roman. The case was otherwise in the Eastern Empire, where art, and especially architecture, had attained, during the age of Justinian, a character not resulting altogether from an imperfect reproduction of the Roman types. Byzantine architecture, it is true, was largely dependent upon the vaulted, more particularly the domical, constructions of the Romans; and the mosaics of Ravenna may even more directly be considered as forming a stage in the decline of Roman painting.

Still, it is not to be denied that, on the whole, we have here to deal with a style of much independence. Byzantine art even became in a certain sense national, through the readoption of Oriental elements which, since the rise of Hellenic culture, had had no direct influence upon classical antiquity. This was in accordance with the peculiar character of the Eastern Empire,—composed of Oriental as well as of Occidental provinces. The methods of artistic expression were thus in harmony with the constitution of the State. To this was added the retention of a very considerable technical ability, which exercised the more influence upon the Western nations the more rapidly the art of Rome declined. It gradually came to be recognized that good traditional methods were only to be found in the Eastern Empire, and after the seventh century Byzantine works were justly regarded as the finest throughout Christendom. Their importation as well as their imitation were alike extensive. The fame which attached to the throne of Byzantium as the only surviving representative of the Imperial power of Rome, was greatly increased by the ability and energy of Justinian, and was reflected upon the artistic industries of Byzantium and its dependencies. As the dominion of the Eastern Empire, based upon its legal and ecclesiastical organization, outlasted the short-lived States founded by the Germanic conquerors of the Western Empire, so also was the supremacy of the Byzantines maintained in artistic respects.

Nevertheless, the art of Byzantium was unable to attain a position corresponding to that occupied before it by the Græco-Roman styles, and after it by the French Gothic: the Eastern Empire was too remote from the rapidly developing nations of Western Europe. The language and ecclesiastical institutions of Byzantium were altogether foreign to the conceptions of Occidental races, especially the Germanic, who found more points of contact and sympathy in the civilization of the Western than in that of the Eastern Empire. The classic style of Rome was in a course of rapid decline, but its civilization and its religion had been the first to influence the Northern nations, and were, in a certain sense, perpetuated, Latin becoming the language of the Church and of all higher culture. Byzantine tendencies affected only the Imperial court, and even that but superficially. Moreover, they were received only from secondary

sources, such as Ravenna or Lower Italy, where they had been modified through the influence of other elements. Hence, in architecture the basilical system, with classic Roman details, and in painting the style of the frescos of the Catacombs, were long retained. The change from these was brought about by rude and barbarous innovations and by independent, but altogether untrained and uncouth attempts, rather than by any resort to Byzantine methods, which were held to be both difficult and unsuitable.

The greatest promise of future development was given by the nations founded in the West of Europe by Germanic races after the migration. From the combination of the vigorous elements of the North with the outworn civilization of Christian Rome arose the new system of European States. The political relations which form the chief subject of mediæval history had been entered upon even before the eighth century: they culminated under the reign of Charlemagne, who conferred upon his Germanic empire a great and enduring power. Notwithstanding this, the culture furthered by this great ruler differed so little from that which had immediately preceded it, that the accession of Charlemagne marks the beginning of no such new period in the history of art as in that of politics. In the former field the work of Charlemagne bore the character of a continuation of the antique traditions, with scarcely a trace of independent innovations,—national peculiarities not even having been considered desirable. Aix-la-Chapelle was to become a new Rome; and when other models than those provided by the Italian capital were chosen, they were derived only from Ravenna, the metropolis of the Western Empire, and perhaps from Milan and its vicinity. The Roman towns of the Rhenish provinces which had been spared by the Germanic immigrants were also not without influence. This is plainly evident in the palaces and churches of the Emperor, and in the contemporary works of sculpture, as models for which antique statues,—instance the equestrian figure of Theodoric from Ravenna,—bronze gates, and ornamented parapets were brought from beyond the Alps. The case must have been similar in painting the mosaics and mural decorations of Byzantium having been of less influence than those of Rome, which, introduced through Lombardy, seem to have been directly imitated in all works excepting those

where unaccustomed subjects required independent conceptions and treatment. Charlemagne appears to have tolerated, rather than encouraged, the novel methods employed in these instances, and he can hardly have regarded with favor the Celtic style of intertwined ornaments, introduced through the illuminated manuscripts of the scholars and missionaries of England and Ireland.

A far greater degree of stylistic independence than that possessed by the Carolingians was developed by the Moslems. This was not the case at first, however. The warlike hordes led by Omar and his successors brought, at least, no monumental art with them from their native country, and borrowed most of their artistic forms from Persia, India, and the subjugated provinces of the Eastern Empire. But in the course of time they were able to combine those various elements with their own independent methods of design, derived from native textile industries, and thus to form a style of perfect unity. The rise of Arabian art resulted in a contrast between Oriental and Occidental civilization, comparable to the dualism which obtained during antiquity. It is not from any unjust prejudice in favor of our own culture, or from any exaggerated conception of its merits, that the art of the Mohammedan East is regarded as less important than that of the West, and in the present volume is treated less in detail. Apart from its almost entire lack of works of sculpture and painting, its architecture is destitute of that constructive logic which renders the buildings of the mediæval Occident so interesting and so instructive. Moreover, the influence of the Orient upon the development of European art was of less moment than one might be inclined to suppose. In Spain itself, where the contact of the two civilizations was more intimate and longer continued than in any other part of Europe, even at the time of the Crusades, the brilliant art of the Moors exercised but a subordinate influence upon that of the Christians. In Sicily, owing to circumstances which will hereafter be explained, Moslem elements were somewhat more extended, and yet not far beyond the limits of the island. The court of Charlemagne, though connected in several ways with the Mohammedan power, was, in artistic respects, wholly unaffected by it; and German art, after the age of the Ottos, borrowed from the East no elements of import-

ance, notwithstanding the inclination of the Hohenstaufens towards the culture of Sicily. In short, the assumption that the Gothic had its root in the architectural methods of the Moors, has been proved erroneous, and the detailed consideration of the growth of Mohammedan art is hence of no direct importance in elucidating the development of that of Europe.

Antique traditions were maintained in the Occident until the period of the Ottos. The artistic methods of the East had continued to decline, notwithstanding the stability of the Byzantine Empire, and had been but little improved through attempts to introduce original traits, such innovations having been too isolated and too barbarous to exercise any important effect upon the style. It was not until the middle of the tenth century that the reproductions of the older types were given up in favor of a more independent activity, and that new forms gradually began to supplant those which had previously obtained. This movement did not, however, result in a contemporaneous and equal improvement of all the arts. Painting and sculpture could not at once be freed from their subordination; they were still almost entirely restricted to the decoration of furniture and utensils, and of manuscripts. Architecture, on the other hand, advanced rapidly. The delight in creation increased with the awakening independence, and with the success attained through experience. In some districts the development thus resulting within a single century was greater than that observable since the time of Justinian,—that is to say, for nearly a thousand years. From the horizontally ceiled basilicas of the Ottos to the vaulted cathedrals of Mayence and Speyer, the advance is so constant, so rational, and so organic that, in Germany, at least, it is to be regarded as constituting in itself a new style: excellent alike in its clear plan, its constructive system, and in the variety and artistic perfection of its forms.

In the year 1100, Germany was as prominent among European nations in artistic as in political respects. Its influence, however, was not of great extent. Western France, Northern Italy, and some districts of Eastern and Northern Europe adopted the principles of German architecture; but in the main the French and Italians followed an independent course of development. The Provence and

Tuscany based their style upon reminiscences of the antique, while the Iberian peninsula and the islands of Great Britain derived their artistic methods exclusively from France.

After the middle of the twelfth century, mediæval art found its most brilliant and important expression in the heart of Northern France. The advance was at first almost entirely limited to architecture, the methods of which, after a comparatively short period of development, were adopted by the neighboring countries. The centre of European culture was removed from Germany to France, becoming of a higher perfection and exercising a wider influence in the Gothic than in the Romanic epoch. All the countries of Europe, with the exception of those dependent upon Byzantium, adopted the new style. In some a certain independence resulted from the combination of native with the foreign methods; this was notably the case in Germany, where the transitional style is to be regarded as an eminently successful compromise, and where, moreover, the new principles were carried to their extreme and logical consequence. The Gothic was treated with the greatest freedom by the Italians, who adopted only such of its constructive and decorative features as could readily be brought into harmony with their existing architecture. Each of the Italian provinces retained its peculiar characteristics, the influence of the French style in the Papal States, for instance, being scarcely perceptible.

The circumstances which affected architecture exercised an influence also upon the other arts, but in these latter the national peculiarities became somewhat more prominent. The sculpture of France, at the beginning of the Gothic, was inferior to that of Saxony during the transitional period; but it continued to improve, in connection with the decoration of architectural members, until it reached a perfection fully equal to that of the French architecture of the thirteenth century. The many statues and reliefs referable to this stage of development are far superior to the similar works of the Romanic epoch, and to the sculptured ornamentations of furniture and utensils dependent upon the traditions of early Christian and Byzantine art. In the Gothic period sculpture again attained to a monumental character, stone becoming the chief material, in the place of metal. The French portal sculptures of

the thirteenth century were equalled only by the marble works of Italy.

The rise of French sculpture was not due alone to the transference of artistic activity from the hands of the monks to those of the laity,—important as this was, in sculpture as in architecture. The hieratic limitations of monastic art were, indeed, overcome; but this change is not in itself sufficient to account for the appearance of that depth of feeling and that classic beauty of form which are so remarkable in the sculptures of Rheims. Nor are these characteristics wholly to be explained by the removal of the centre of European civilization from Saxony and the Rhenish provinces to the heart of France. The cause of this elevation of æsthetic ideals is rather to be sought in the extension of all culture, which,—previously restricted to courts and to clerical circles,—now first became general, and exercised a direct influence upon every form of artistic expression. The changes thus brought about in the civilization of Europe were of such far-reaching importance that the characteristic features of the Gothic style are not wholly explicable by the continued development of those of the Romanic. A distinct line of demarcation is hence to be drawn between these two styles, notwithstanding the appearance of transitional phases,—in this as in other revolutionary epochs of civilization.

German sculpture during the early Gothic ages was but of secondary importance,—the Rhenish provinces being in this respect largely dependent upon France: Saxony and Franconia upon the schools established at Freiberg and Wechselburg towards the close of the preceding epoch. In a later age, on the other hand, when the artistic activity of France had greatly declined, Germany overcame its archaic conservatism, and at last attained an independent position. The predominance of the burgher element in the free cities of Germany elevated the conceptions and ideals of the middle class, and transformed the cycle of ecclesiastical representations. This national movement in sculpture corresponded to the development of the equal-aisled churches in architecture. Wood-carving was much cultivated, influencing not only sculpture in stone, but even painting.

Italy made still fewer concessions to the artistic methods of

France in sculpture than in architecture. Niccolo Pisano did but follow the example of his predecessors of Southern Italy in basing his style upon that of ancient Rome. This tendency has been regarded as the beginning of the Renaissance,—a view which has led to the greatest confusion in the historical treatment of mediæval art. In reality, Niccolo's recourse to antique models was as little related to the Renaissance as were the studies of the artists of Emperor Frederick II. It is as erroneous to connect this movement with that of the Quattrocento as it would be to ascribe a similar importance to Carolingian art, to the ivory carvings of the age of Henry II., to the works at Freiberg and Wechselburg, or to the noble Gothic sculptures of Rheims. It is true that this study of ancient models led to a distinct improvement, and, in a certain sense, to a re-birth of classic art. But that individuality of the artist, which should be regarded as the chief characteristic of the Renaissance, is wholly lacking. Local traits and the character of the age predominate, in the school of Pisa, over the personal equation of its chief exponents. As a sculptor Niccolo is to be considered a master of the Romanic style, or of the transition between the Romanic and Gothic rather than of the Renaissance,—and the same may be said of his Saxon contemporaries, the sculptors, of Freiberg and Wechselburg. Giovanni Pisano, the son of Niccolo, appears, on the other hand, as a true representative of the Gothic. Notwithstanding his almost entire freedom from the influence of France, he was inspired by the same spirit as were the artists of Rheims,—the difference in the results being mainly due to his classic training. This Gothic tendency was maintained by the successors of Giovanni, Andrea Pisano and Giotto, although these latter again gravitated towards the antique. An anachronism, in point of character as well as of time, is plainly felt in the attempt to class Arnolfo di Cambio, to whom the Gothic architecture of Italy owes its greatest eminence, with the sculptors of the fifteenth century,—or to consider Giotto, the architect of the Gothic Campanile of Florence and the greatest painter of mediæval Italy, as an artist of the Renaissance, on account of the classic tendencies of his sculpture.

The case was similar with painting. In the period of the greatest development of Gothic architecture, France cultivated chiefly

two branches, illumination and painting upon glass. Germany followed this example, attaining great perfection in stained glass, and adopting new methods in miniature painting. The decorative tendencies of French miniatures and their brilliant coloring,—of but little truth to nature, and evidently an imitation of the effect of transparencies,—did not obtain on the east of the Rhine. The pen drawings of Germany followed that method of illustration which afterwards led to the all-important wood-cut and copper engraving. In Brabant and Flanders, on the other hand, French miniature painting gradually resulted in the development of panel painting,—the first great works of which, in the Netherlands, are referable to the beginning of the fifteenth century. This art was as little related to the Renaissance as was the sculpture of the Pisan school. The painting of Flanders and Brabant is to be regarded as the perfected outcome of mediæval conceptions and methods rather than as the beginning of the new period. It also bears the stamp of organized schools and of local peculiarities,—not of the ability and personality of individuals. Hence the attempt to determine the artists of the many unsigned pictures of this period can never be altogether successful. Moreover, in the age of Jan van Eyck and Rogier, architecture was still purely Gothic, and, indeed, all civilization was mediæval. In the school of Cologne, as in those of Schongauer, Zeitblom, and Wolgemut,—all of which were in some measure dependent upon the painting of Brabant,—no higher degree of emancipation is observable than in the ornamental types employed by Gutenberg, whose invention was destined to so greatly further the spread of the new ideas. The altar of Kaisheim, painted by the older Holbein early in the sixteenth century, is as entirely Gothic as the Sacrament-house of Adam Kraft in the Church of St. Laurence at Nuremberg. In short, the influence of the Renaissance did not make itself felt in Germany before the sixteenth century. Among its first representatives in that country, only Hans Holbein the younger was trained in the new school, Peter Vischer and Albert Dürer having founded their artistic methods directly upon those of the Middle Ages.

The pre-eminence of Italy, after the first decades of the fifteenth century, may be compared to that of France in the middle of the

twelfth; it was, in artistic respects, more than fifty years in advance of the rest of Europe. Indications of this improvement are indeed evident before the advent of the Quattrocento, although at the beginning of that century the art of Italy was still entirely Gothic. The greatest Gothic painter of Italy, Giotto, and the greatest sculptor, Giovanni Pisano, were followed by a generation of mediæval artists. Masolino and Fiesole were also representatives of the Middle Ages, the latter, especially, being truly Gothic in the conception and form of his work. Gothic traditions were not altogether discontinued until the age of the architect Brunellesco,—of the painters Masaccio and Lippi,—and of the sculptors Ghiberti, Donatello, and Robbia.

The scope and arrangement of the present volume have been adapted to this view of the historical advance of Mediæval Art. A glance at the Table of Contents will show the logical sequence which it has been the endeavor of the author to follow. The hope is entertained that in this regard an improvement has been made upon earlier histories of art. If the reader find the arrangement to be simple and natural, the purpose of the author will have been attained: the works of his predecessors, following other systems, have seemed to him to lack these qualities. Should, however, this plan be found disadvantageous and defective, the chief claim of the book upon the attention of scholars will be lost. The value of such a history cannot depend upon details. An extended description of the various monuments was hence, within the limits of a single volume, as undesirable as it was impossible. For similar reasons, a citation of the hundreds of monographs could not be attempted. Many of these relate solely to works of art to which, in a general history, but few words can be devoted. In the present case, therefore, the value of such references would not justify the loss of space which they must occasion. It has been the great desire of the author to present a history of artistic evolution more logical and more consequential than those with which he was acquainted. If he has succeeded in this, he may trust that the book will prove of value to those readers whose desire it is to obtain a general view of the artistic development of the Middle Ages.



Fig. 1.—The Mythræum under S. Clemente in Rome.

EARLY CHRISTIAN AND BYZANTINE ARCHITECTURE.

CHRISTIAN communities, in various parts of the Roman Empire, had attained a certain degree of organization as early as the epoch of the three Flavian emperors—Vespasian, Titus, and Domitian. In like manner the first activity in Christian art dates back to the time when the prophesied destruction of Jerusalem was fulfilled: to a period when antique Roman art was still at the height of its development, maintaining a perfection which it had reached hardly a century previous—that is to say, shortly before the commencement of our era.

One might be inclined to suppose that the earliest artistic productions of the Christians, aside from the difference of the subjects represented, would have shared the generally high standard of the work of the first century, and would have been distinguished, above the mass of later creations, equally with the Pagan monuments dating from the time of Hadrian and Antoninus. This, however, was not the case. Architecture, chief of Roman arts, had fallen into almost entire neglect; and there was little furtherance of sculpture and painting, perhaps because of the Jewish anathema still resting upon graven images. The Christian religion, at first, rarely received

its recruits from the classes of the rich and the aristocratic; far the greater number came from the obscure multitudes of those that labored and were heavy laden. The funeral rites of these humble people were without ostentation; their simple monuments were the work of common artisans or of untrained hands, and could not be remotely compared to the imposing constructions of imperial Rome, as exhibited in the mausoleums of the emperors, or even in such fine private tombs as those bordering the Appian Way. Indeed they were far from wishing to imitate such examples. This was not alone due to the extreme poverty and the despised position of the Christians, who, for a long time, were considered only as the lowest sect of the Jews, nor to their contempt for display; they were forced by repeated persecutions to avoid all pretension which might easily have excited their enemies to destroy even the monuments of the dead.

Yet the common opinion, that disturbance of the graves accompanied every interference with the Christians, and was the cause of their peculiar choice of burial-places, is not well founded. The important researches of the brothers De Rossi * have decided beyond a doubt that the Christian cemeteries, which often occupied sites previously used for interment, though newly adapted to the peculiar requirements of the sect, were generally situated upon tracts bought for this use and officially surveyed, thus of course being well known to the temporal authorities. This publicity brought no danger, for the Roman law gave protection to the dead without distinction of person or religious belief. The subterranean chambers and passages could thus be peacefully and regularly developed, without attempt at secrecy; indeed the portals or entrances to the staircases could not well be hidden. But when the Christians, in times of fanatical persecution, extended their burrowings beyond the boundaries assigned to them, united various groups of subterranean tombs, or deviated from the natural arrangement of the

* G. B. de Rossi: *Roma sotterranea cristiana descritta ed illustrata*. Roma, 1864-1867. The same, *Bulletino di archeologia cristiana*. Roma, 1863 sq. Compare also: F. X. Kraus, *Roma sotterranea. Die römischen Katakomben*. 2d Edition. Freiburg i. B. 1879.—Theoph. Roller, *Les Catacombes de Rome*. Paris, 1879, 1881.—Vict. Schultze, *Die Katakomben. Die althristlichen Grabstätten, ihre Geschichte und ihre Monumente*. Leipzig, 1882.

spaces so as to produce within a square area a labyrinthic confusion of corridors and niches, or when they covered with earth the entrances from above ground, replacing them by secret shafts, these alterations had nothing to do with the original architectural plan or with the artistic accessories, only becoming necessary in times when the violence of persecution trespassed upon the public regulations and set at naught the protection afforded by the State to every place of burial. The catacombs have derived their name from the cemetery of S. Sebastiano, which was called *Ad Catacumbas* by a chronographer writing as early as A. D. 354, this appellation having been extended to all subterranean galleries used by the Christians for interment. From the earliest times it was the custom of the sect to inhume, not to burn, the bodies of their dead, and this custom was of decisive influence in determining the arrangement of their sepulchres. Burial in roughly-built vaults was, it is true, not entirely excluded; this method, which was general in heathen Rome, being originally followed by the Christians. But their chambers for this purpose were never built above ground. The catacombs thus appear, in some measure, as a reminiscence of the grotto tombs prevalent not only in the native country of Christianity, but also among the Romans of the Republican era, after the practice of burning the bodies had been given up,—as for instance in the so-called tomb of the Scipios. Even in those earlier times it often occurred that large families could not be accommodated in one chamber, and it had been found necessary to gain more room by arranging lateral passages, with or without larger recesses. In the cemeteries of the united and rapidly increasing community of Christians such an extension of the place of burial was even more requisite. They were obliged to crowd the corridors and chambers closely together, to double and treble their capacity by excavating more deeply, and to extend the entire area, until, by the uniting of sepulchres which had previously been isolated, an extensive necropolis was formed.

It is scarcely possible to give an adequate account of the historical development of the catacombs. The oldest cemeteries of this kind have been but insufficiently explored; their original arrangement has been rendered uncertain by extensive alterations,

and they have often been choked with débris, or entirely destroyed. The cemetery of the Vatican is quite lost for the purposes of comparison, by reason of the changes brought about through the building of St. Peter's. Of the other cemeteries, dating back to the apostolic age: those of Lucina, or Comodilla, near St. Paul's, on the Via Ostiensis; of Priscilla, on the Via Salaria Nova; of Ostri-
anum, or Fontis S. Petri, between Via Salaria and Nomentana; and of Domitilla, on the Via Ardeatina,—only the last has been systematically investigated, and this but in part. We find in them little that is peculiarly Christian. They represent, it is true, the first patriarchal government of the Christian congregations, by maintaining the character of family burial-places, but they show no traces of that community of sepulchre which in course of time became general. Christian land-owners took advantage of the Roman law, which permitted the burial even of executed criminals upon private tracts situated without the city, as is proved by the fact that the earliest martyrs of the Church were interred on the Appian Way, the Via Ostiensis, and the Via Aurelia. The tombs found at these places were constructed of masonry, instead of being merely excavated in the tufa formation; they have niches for sarcophagi, stuccoed architectural ornaments which but rarely appear after the third century, frescoes of a classical style, inscriptions with but slight traces of the Christian belief, and, finally, are without those small resting-places for the bodies, in the walls of the chambers and passages, which afterwards appear. All these peculiarities distinguish the apostolic cemeteries from the later Christian places of interment. The typical form of the catacomb first appears completely determined in the third century, notably in the plan of that of Calixtus, although the earlier cemeteries—of Praetextus, on the Appian Way, and of Maximus and Jordani, on the Via Salaria—dating to the second century, may have decided many features of the arrangement. We limit our present consideration, therefore, to the former representative necropolis, with its various extensions, especially as this complex alone has been thoroughly examined and published.

The Catacomb of Calixtus had its origin without doubt in a family burial-ground of considerable extent which was comprised

among the possessions of the *Cæcilia gens*, and in which members of the *Cornelia gens* and the *Pomponia gens* had, as relatives, some right. Before the Christian necropolis was laid out upon the site, the whole area must have been divided into several small cemeteries. The most important of these, before the Christian era, was probably that adjoining the Appian Way, and distinguished by a mausoleum of some eminence. This tract was not at first acquired by the Church. The dependents of the Roman families before

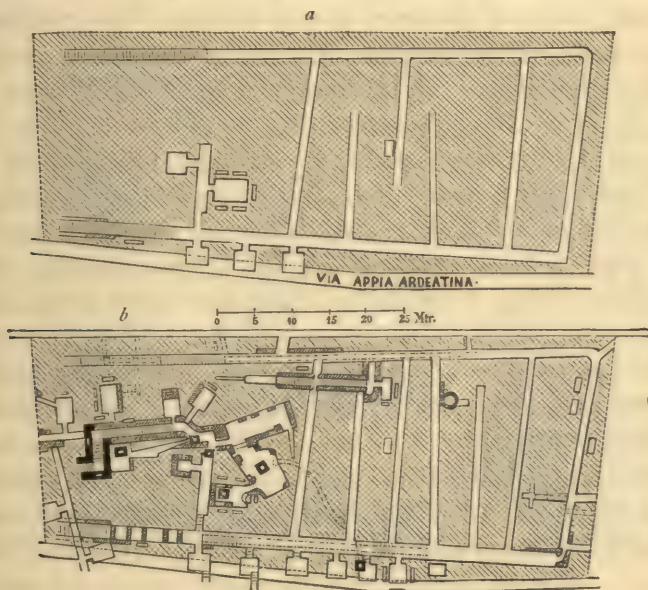


Fig. 2.—Plan of the Catacomb of Calixtus.

a. Original excavation. *b.* Later extension.

mentioned appear to have been buried at a greater distance from the high-road. The Christian remains here discovered, which date to the first century, are few in number. From various stamps upon bricks, inscriptions and other evidences, it is plain that in the time of Marcus Aurelius and Commodus, before A.D. 177, the tract adjoining the Appian Way (the Coemeterium Lucinae) had become of less importance than the burial-grounds situated south of the Via Appia Ardeatina, which were afterwards united, and formed the Catacomb of Calixtus. According to the convincing deductions

of G. B. de Rossi, this was the age when the most celebrated Christian representative of the original proprietors, St. Cecilia, suffered martyrdom. To this epoch are to be ascribed the six small chambers and the extended corridors approached by two parallel staircases, in which spaces the owners, after having been converted, buried not only the members of their own families, but others of the Christian faith. (*Fig. 2, a.*)

The latter usage, increasing more and more, led ultimately to the formal grant of the tract to the Church. This transfer was probably made on the occasion of a decree concerning communal sepulchres, promulgated by the Emperor Septimius Severus in the year 197. It is in this business that the Christian Church first appears as a corporative body, in the legal sense of the word. When Zephyrinus assumed the papacy, in the year in which this edict was promulgated, he named Calixtus, who afterwards also became pope, as his deacon, and appointed him supervisor of these cemeteries, declaring them to be under the direct administration of the Church—a control which had not been thought of before, when the private burial-places had only occasionally, and as a favor, been made accessible to the Christians. This centralization was further confirmed by the papal founder giving up the right to be buried by the side of St. Peter in the vault of the Vatican,—a privilege which he enjoyed as head of the Church,—and ordering his body to be interred in the new Christian necropolis. This example was followed during the succeeding century by nearly all the popes. A kind of open secret was, however, still maintained in regard to the cemetery, which prevented its being called by any term expressing the true importance of the site. Sometimes it was designated by the name of the founder, Zephyrinus, sometimes by that of the patroness, St. Cecilia, and more commonly still by that of the first supervisor, Calixtus. It is not possible to decide with absolute certainty what changes were effected in the chambers of this catacomb upon its coming under the jurisdiction of the Church; but it is probable that, even during the first years, several new spaces were added to those already opening from the northern corridor, that passages laid out in the plan of the Cæcilian complex were excavated, and that several of those existing were con-

siderably enlarged. (*Fig. 2, b.*) An entirely new story upon a lower level was projected, and this extension was, in fact, commenced by providing a broad and deep staircase. But it was soon found that the lower stratum of earth differed from that previously worked in, and lacked the necessary solidity for tunnellings of this kind; the scheme was therefore relinquished. It is particularly unfortunate, that we are not able to determine in what relation the chief vault of the necropolis, namely the burial chamber of the popes, stood to the cemetery as it was before the time of Calixtus. This chamber



Fig. 3.—Third Crypt of the Northern Passage in the Catacomb of Calixtus. First Period.

may well have existed under the Cæcilians—it may even have been the tomb of St. Cecilia herself, as the remains of her body, when discovered in the ninth century, were not lying in their original position, but in a tomb which could not have been one of those earliest excavated. It is at least certain that, in the course of time, the Papal Vault was subjected to many changes. In form and decoration it may be assumed to have resembled at first the chamber opposite to it, which is called, from the painting upon the ceiling, that of Orpheus; but we can only judge of the vault from the remains of the restoration, made in the time of Pope Damasus (A.D. 366–384), in which state it is represented by *Fig. 4*.

The general plan of the Catacomb of Calixtus (*Fig. 2*) is of extreme simplicity. The chief corridors form an oblong comprising nearly the whole area, and are connected by several parallel passages running transversely. The resting-places for the dead (*loculi*) appear in all spaces, being cut into the tufa walls in several tiers, and of such dimensions that each is capable of receiving one body lying in the direction of the passage. These tombs were finally closed by a slab of stone, or walled up with bricks. Niches shaped



Fig. 4.—Papal Vault in the Catacomb of Calixtus.

a. Present condition. *b.* Restored view.

like an arch (*arcosolia*) do not at first appear, the ceilings being either horizontal or only slightly curved. (*Fig. 5.*) The small, almost cubical chambers (*cryptae* or *cubicula*), are fewer in number than the corridors; their ceilings are commonly curved, and but rarely provided with openings for light and air (*luminaria*). These chambers contained sarcophagi (*mensae*) reserved for eminent personages; being covered with large slabs of marble, the coffers were frequently used as altar-tables. Masonry of brick was employed

when found necessary, and all the walls were thinly covered with stucco, whitewashed and roughly painted.

The persecutions with which the third century began, disturbed for the first time the regular development of the plan. At that period seem to have been formed those hidden labyrinthic galleries which led from the side farthest from the street to the neighboring sand-pits, in order that, in case of surprise, an escape might be provided, and that the believers, when watched by informers, might find unobserved entrance by means of ladders and ropes. As in general the persecutions were directed against the congregations rather than against the cemeteries, the extension of the latter was carried regularly forward. Indeed, from the death of Septimius

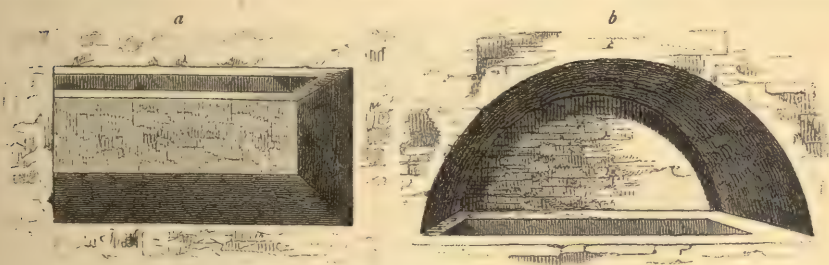


Fig. 5.—Forms of Tombs in the Catacombs. -

a. Loculus. *b.* Arcosolium.

Severus, in the year 211, to the beginning of the persecution under Decius, in 250, the work was pursued with great diligence, and but rarely interrupted.

After the founder of the necropolis, Pope Zephyrinus, had been interred there, in the year 218, even the bodies of the chief officers of the Church who had died in exile were permitted to be publicly brought, with funeral rites, and laid in the Papal Vault. Pope Fabianus connected the oldest enclosure of the Cemetery of Calixtus with a second tract, situated upon the other side of the Via Appia Ardeatina, which had likewise belonged to the Cæcilian family; and, probably in 249, with still a third adjoining complex, which appears to have been given to the Church by Anatolia, daughter of the Consul Aemilianus, who died in that year. This last catacomb received, in later times, the name of St.

Eusebius. Alexander Severus had even permitted assemblages of the Christians in the city itself, and under so tolerant a rule the cemeteries of course remained undisturbed. Philippus Arabs was still more favorably inclined towards the sect, and in his time permission was granted to erect buildings above the burial-grounds, such as the *cella* with the three apses, which will be referred to below.

The experience of years had fundamentally changed the plan of excavation. In proportion as the corridors diminished, the crypts increased, and generally bordered both sides of the galleries. Instead of the simple *mensae* (Fig. 5), arched niches were introduced for distinguished individuals. In order that the chambers might be

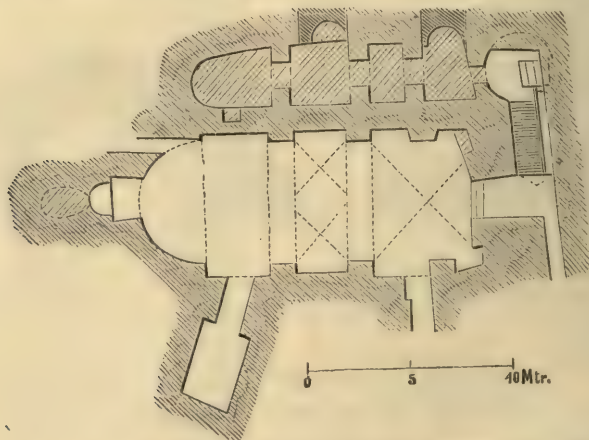


Fig. 6.—Plan of a Crypt in the Coemeterium ad septem Columbas.

better ventilated, efforts were made to gain light and air through shafts, which openings served also for carrying away the displaced earth. The third cemetery, that of St. Eusebius, displays for the first time a successful arrangement of two stories. It was particularly desirable to provide larger spaces for the accommodation of assemblages, and this was effected chiefly through the combination of several chambers, although these never attained, in the Necropolis of Calixtus, the extent of the halls in the Catacomb of S. Agnese, and in the Coemeterium ad septem Columbas on the Salita del Cocomero (Fig. 6).

The bloody persecution under Decius, in the year 250, seems not to have molested the catacombs as places of burial, and the persecution of Valerian, A.D. 257-258, was directed solely against the assembling of congregations. Pope Sixtus II., in the year 258, while administering the service in the Cemetery of Pretextatus, amid numerous believers, was seized and beheaded before the altar, yet no objection was made to the burial of his body in the Papal Vault of the Cemetery of Calixtus. It is true that at this period the Christians destroyed the staircases to the oldest of these catacombs, only leaving open the secret entrances through the sand-pits; but this seems to have been done in a season of panic which quickly passed, and, from the time of Gaius until towards the close of the reign of Diocletian, the Christians continued in undisturbed peace to bury their popes in the Papal Vault, then called after the martyr, Pope Sixtus. They also extended the necropolis itself beyond the boundaries of the three tracts before mentioned, to the Cemetery of S. Soteridis, situated at the west, thus doubling the area enclosed.

Under Diocletian and Maxentius (A.D. 303-306) the danger of confiscation threatened that part of the cemeteries distinguished by greater age and containing the Papal Vault, this interference being proposed with the view of attacking the ecclesiastical community at its greatest stronghold. The Christians, affrighted by the impending profanation of the sacred resting-places of their martyrs, could only protect them by hastily covering the catacombs and passages with earth. Much was thus preserved for the excavations of modern times. Still it is to be taken into consideration in this regard, that the vestiges now discovered have frequently been disarranged by the burrowings which, after the cessation of the persecutions, had been extended regardless of the boundaries of the original plan. The débris with which the catacombs had been filled during the persecutions under Diocletian was partially removed at the time when Pope Damasus (A.D. 366-384) restored the chief crypt, which he provided with a new approach, and, in great measure, with new surroundings. This was long after the Christians had been formally permitted to enter into possession of their confiscated property. In later ages the burial-places of the sect increased more and more,

and after the beginning of the fifth century were built almost exclusively above ground. The catacombs continued to be peculiarly venerated, until the devastation of the Longobards under Aistulf (A.D. 755) rendered it desirable to remove the remains of the popes and martyrs into the basilicas of the city for safe-keeping. This was accomplished under Paschalis I., who, in 817, transported the bones from the Papal Vault, as well as the coffin of St. Cecilia, still intact at that time, from the ruined cemetery to the churches of St. Praxedes and St. Cecilia; while the burial-grounds outside of the walls, with exception of the Catacomb of Domitilla, remained, in part at least, open and known. The chief necropolis, neglected, fell

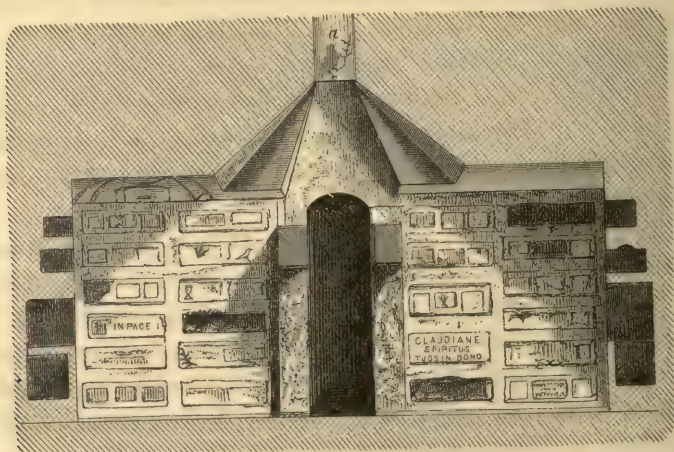


Fig. 7.—Section of a Crypt in the Catacomb of St. Peter and St. Marcellinus.

into decay after this time, and has been re-opened and examined for the first time within our own century. The Papal Vault was discovered in 1854.

The form of the other cemeteries of Rome, dating from the second and third centuries of our era, resembles in the main that of the Necropolis of Calixtus (*Fig. 7*). The number, the extent, and the multitude of tombs contained in these cemeteries is astonishing. The earth underneath even the most distant suburbs of Rome was honey-combed with corridors and chambers. They are found upon nearly all the high-roads leading from the city. G. B.

de Rossi has explored not less than twenty-six of the larger catacombs, dating from the time of the persecutions, several of which complexes consist of united groups of more primitive places of burial. A list of these is here adjoined, giving the names in use before the reign of Constantine, with the later appellations in parentheses: on the Via Appia, the Cœmeteria Calixti, Prætextati, and ad Catacumbas (S. Sebastiani); on the Via Ardeatina, the Cœmeteria Domitillæ (S. S. Petronillæ, Nerei, et Achillei) and Basilæi (S. S. Marci et Marcelliani); on the Via Ostiensis, the Cœmeterium Comodillæ (S. S. Felicis et Adaucti); on the Via Portuensis, the Cœmeterium Pontiani ad ursum pileatum (S. S. Anastasii et Innocentii); on the Via Aurelia, the Cœmeteria (S. Pancratii) Lucinæ (S. S. Processi et Martiniani) and Calepodii (S. Calixti in Via Aurelia); on the Via Flaminia, the Cœmeterium (S. Valentini); somewhat aside from this latter street the Cœmeterium ad septem Columbas (ad caput S. Joannis); on the Via Salaria vetus, the Cœmeterium Basilæ (S. Hermetis and S. Pamphyli); on the Via Salaria nova, the Cœmeteria Maximi (S. Felicitatis), (S. Saturnini), Jordanorum (S. Alexandri), and Priscillæ (S. S. Silvestri et Marcelli); on the Via Nomentana, the Cœmeterium Ostrianum (Fontis S. Petri); on the Via Tiburtina, the Cœmeteria (S. Hippolyti) and Cyriacæ (S. Laurentii), and (S. Castuli); on the Via Latina, the Cœmeteria (S. Gordiani), (S. Terulliani), and Aproniani (S. Eugenïæ).

It may be assumed that similar catacombs existed in all those larger cities where Christian congregations were formed, in so far as the character of the earth would permit of such excavations. Only a few of these, however, have become known. Next in importance to those of Rome ranks that of St. Januarius in Naples, the chief portal of which is so imposing that it hardly appears to have been constructed for the original cemetery, but rather to have been erected in later times, as a monumental entrance for the network of combined corridors and chambers. In the catacombs of Syracuse is a baptismal crypt in use at the present day. The Cemetery of Alexandria, discovered a few decades ago, shows a well-proportioned arrangement of cubical chambers, and the peculiarity of a different system of niches, which, instead of being excavated with their axes parallel to the passages, are sunk transversely. (*Fig. 8.*)

As the entrance buildings of the Catacomb of Calixtus were, for the most part, destroyed as early as the time of the persecutions, it is difficult to say what may have been their architectural characteristics. The portal near the Catacomb of Domitilla, having belonged to a very early Christian tomb, certainly cannot be considered as a type. A covered chamber, perhaps after the style of the smaller columbaria, appears to have protected the staircase, when this did not proceed from within some family mausoleum of

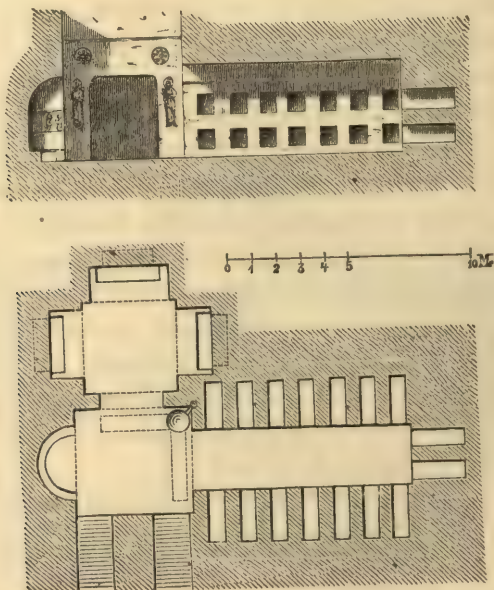


Fig. 8.—Section and Plan of Part of the Catacombs of Alexandria.

masonry antedating the Christian era. We must distinguish between these entrances and the oratories (called also *Memoriæ*, *Martyria*, or *Confessiones*), which seem to have been erected to mark above ground the central points of the areas of the various cemeteries. The oratory, consecrated afterwards to St. Sixtus and St. Cecilia, standing over the second tract of the Catacomb of Calixtus, dates from the period before the persecution of Decius, the pontificate of Fabianus, A. D. 250. Others, partially preserved, like that of S. Soteridis, situated not far from the preceding, and a similar

building near the Basilica of Symphorosa, nine miles from Rome, on the Via Tiburtina, seem to be of but little later date. (*Figs. 9 and 11.*) The ground-plans are oblong, with semicircular enlargements on three sides, the fourth having formed the entrance. Although these oratories served the double purpose of the larger crypts, which were both monumental tombs and places of worship, it still appears that their form is derived less from the plan of the round-topped arches above the niches for the bodies than from the direct prototypes offered by antique mausoleums, such as are found on the Via Appia. (Comp. Canina, *Via Appia*, tv. 20.)

These oratories and the crypts of the catacombs could not suffice for the considerable spaces required by Christian ceremonies. Other

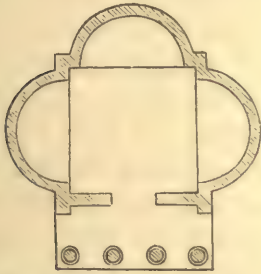


Fig. 9A.—Antique Mausoleum on the Appian Way.

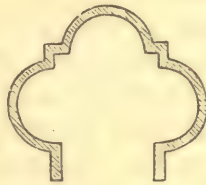


Fig. 9B.—Oratory of SS. Sixti et Cæcilie.

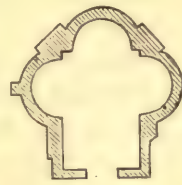


Fig. 9C.—Oratory of S. Soteridis.

halls of assemblage existed from the earliest times in those cities where Christian communities had been formed, these being generally provided by the dwellings of the more wealthy converts.*

* J. G. Gutensohn und J. M. Knapp, *Denkmale der christlichen Religion, oder Sammlung der ältesten christlichen Kirchen oder Basiliken Roms vom 4. bis zum 13. Jahrhundert.* (Letter-press by Ch. C. J. Bunsen.) München, 1822-1827.—L. Canina, *Ricerche sull'architettura più propria dei tempi cristiani.* Roma, 1846.—A. Chr. A. Zestermann, *Die antiken und die christlichen Basiliken.* Leipzig, 1847.—F. v. Quast, *Ueber Form, Einrichtung und Ausschmückung der ältesten christlichen Kirche.* Berlin, 1853.—J. A. Messmer, *Ueber den Ursprung, die Entwicklung und Bedeutung der Basilika in der christlichen Baukunst.* 1854.—The same, *Ueber den Ursprung der christlichen Basilika,* in Quast and Otte's *Zeitschrift für christliche Archäologie und Kunst.* II. 1859.—H. Hübsch, *Die altchristlichen Kirchen nach den Baudenkmalen und älteren Beschreibungen.* Karlsruhe, 1858.—W. Weingärtner, *Ursprung und Entwicklung des christlichen Kirchengebäudes.* Leipzig, 1858.—O. Mothes, *Die Basilikenform bei den Christen der ersten Jahrhunderte.* Leipzig,

The rite of the Last Supper had been inaugurated in the triclinium of a private house, and the followers of Christ could have no objection to holding their religious exercises in rooms of this kind. After the Ascension the Apostles had assembled in an "upper chamber," and it was thus that the disciples met in later times—not only for their agapæ, or love-feasts, but for every kind of devotional service. This custom is particularly mentioned as having maintained in Ephesus, and the traditions of gatherings in the houses of Pudens, Cecilia, Eutropia, Lucina, Anastasia, and others prove beyond a doubt that in Rome some chambers, if not the dining-rooms, of private dwellings were similarly employed. Such halls acquired by this usage a certain consecration, and they seem, not uncommonly, to have been set apart entirely for religious purposes, being more and more adapted to their ecclesiastical character by alterations both of plan and of decoration. Of this kind were those rooms the remains of which were discovered in the eighteenth century near S. Prisca, in the House of Pudens, and quite recently (in 1878) on the Monte della Giustizia, not far from the Baths of Diocletian. The use of these buildings for religious services may at times have been interrupted, as G. B. de Rossi (*Bullet. christ.* 1870, 153) assumes to have been the case with the structure, similar to a triclinium, under the primitive Basilica of S. Clemente. Even in the Apostolic age this room had served for Christian gatherings; yet at the time of the persecutions it was confiscated, transformed into a chapel of Mithras, and not given back to the Christians until the reign of Constantine the Great. (*Fig. 1.*)

The Christian congregations increased so rapidly that even the largest dining-rooms no longer sufficed to accommodate them; they thus found it necessary to occupy the most spacious chambers provided by the Roman dwelling. These were the private basilicas, or ceremonial and judgment halls. The credit of having directed

1865. II. Edition, 1869.—J. P. Richter, *Der Ursprung der abendländischen Kirchengebäude*. Wien, 1878.—H. Holtzinger, *Die römische Privatbasilika*. *Repertorium für Kunstwissenschaft*, Vol. V. Berlin und Stuttgart, 1882.—G. Dehio, *Die Genesis der christlichen Basilika*. *Sitzungsberichte der hist. Cl. der kgl. bayr. Akad. der Wissenschaften*. München, 1883.

the attention of investigators to this prototype is due to J. A. Messmer. The form of the private basilica in the houses of the Roman aristocracy has been described in the *History of Ancient Art*.* It was there shown that they differed essentially from the original type of the forensic basilica. The chief differences are, first, that the colonnades of the interior did not extend entirely around the central oblong, but, after the manner of the *hyperoön* in the larger Hellenic temples, were restricted to the two long sides; and, second, that the nave was higher than the side aisles. Both these peculiarities resulted from the original hall having been enclosed by other rooms of the Roman dwelling. The elevation of the nave became necessary because, in a space thus surrounded, windows could not be opened through outer walls, as had been the case in the free-standing, forensic basilicas; and if the light were not to be admitted through an aperture in roof and ceiling, an arrangement of windows was only possible by thus increasing the height of the nave. Such a construction could, in its turn, only be carried out by giving up the end galleries: it was thus alone that the great weight and thrust of the clerestory, with its independent roof and ceiling, could be supported. The end walls might then be strengthened, and the columns in great measure relieved of their burden. This disposition of side aisles, differing from the original type of the public Roman basilica, as displayed in the Basilica Porcia on the Forum Romanum, is noticeable in the Villa of the Quinctilians, on the Appian Way, according to the plans given by Canina. (*Fig. 10.*) As the present writer predicted in an earlier work, the same feature has since been found in the palace basilica of the Domus Flavia upon the Palatine, mentioned by Plutarch (*Popl. 15*).

It is evident from various sources that the basilicas of private houses were used as places of assemblage by Christian communities before the time of Constantine. The pseudo-Clementine *Recognitions*, which certainly date from the first half of the third century, relate that one Theophilus, a rich citizen of Antioch, gave the great basilica of his house to the Christians as a hall for gatherings.

* "*History of Ancient Art*," by Dr. Franz von Reber. Revised by the author; translated and augmented by Joseph Thacher Clarke. Harper & Brothers, New York.

Similar accounts have been handed down by Hieronymus (Ep. ad Ocean.) concerning the basilica in the Palace of the Lateran, which was famous even as early as the first century of our era; and also by Ammianus Marcellinus (xxvii. 3), who speaks of the Basilica Sicinini—which in later ages appears to have become the Basilica Liberiana (S. Maria Maggiore)—having been used by the Christians. Other early Christian churches may, with reasonable probability, be considered to have been remodelled from the great halls of Roman dwellings, although it cannot be directly proved that these were at any time employed originally as private basilicas. Such is the Ba-

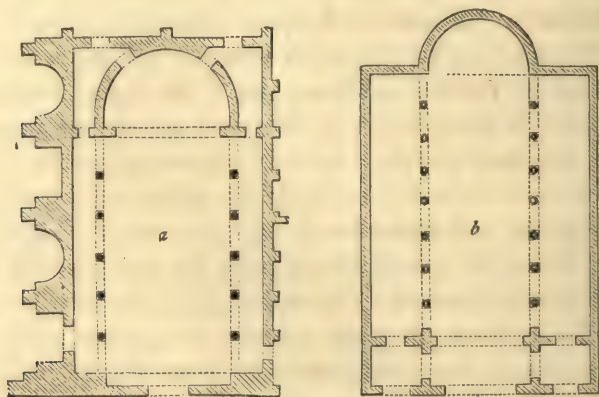


Fig. 10.—Antique Palace Basilicas.

a. Plan of the Basilica of the Domus Flavia on the Palatine. *b.* Plan of the Basilica in the Villa of the Quinctilians on the Appian Way.

silica Pudensiana, near S. Maria, in Trastevere, which, if its first arrangement for this purpose really dates back to the year 224, is as old as A. D. 145. Such is also the Basilica of Junius Bassus, afterwards known as that of S. Andrea, in Catabarbara, which preserved, even until the sixteenth century, a decoration of the walls antedating Christian times. (Fig. 46.) And, finally, such is the Basilica Sessoriana (S. Croce, in Gerusalemme), which was part of a palace of Constantine, consecrated as a church in the year 330, it is said at the instance of St. Helena. Hübsch's examination of this latter building, as it at present appears after many alterations, has made it probable that two-storied side aisles were originally under one

roof, with a nave of equal height. More recent investigators in the field of Christian archæology have recognized private basilicas, adapted to the Christian ceremonial, in several churches of Africa.

Halls of assemblage such as these could hardly have been kept quite secret; and the complaint (Minucius, c. viii. x. xxxii.) that the Christians had no public places of worship, and carried on their devotions in hidden corners, can certainly not be applied, in a literal sense, to the entire epoch before Constantine. A house for Christian meetings is mentioned as existing at Edessa as early as the year 202. A passage of Lampridius (Vita Alex. Sev. xlix.) must certainly be considered to refer to some place of worship outside of a private building, he stating that when the Christians contended with the tavern-keepers for a *locus publicus*, the Emperor Alexander Severus (222-235) decided "it to be better that the place should be used for the worship of God, in whatsoever manner, than for carousing." The edict of A. D. 259, whereby Gallienus restored to the Christians those cemeteries and consecrated rooms which had been taken away from them during the persecution under Decius (250-253), speaks for the existence of independent churches in the cities. And the observation of Optatus Milevitanus (de Schism. Donat. ii.)—that there were in Rome, soon after the persecution of Decius, more than forty basilicas—can hardly be taken to refer merely to the chapels of cemeteries, or to the oratories of private houses. It is quite natural, and is moreover susceptible of proof, that the places of Christian worship were greatly increased in number throughout the entire Roman empire during the freedom from persecution which was enjoyed from the reign of Decius until that of Diocletian. But it is not less certain that very few of the churches, whose existence had at that time become generally known, escaped destruction during the persecution under Diocletian, A. D. 302. Hence we are acquainted with no Christian basilica built for purposes of worship before the age of Constantine.

The Christian communities do not at first appear to have been unreasonably particular as to the nature of the places where they held their assemblages. They employed without distinction the larger rooms of the Roman dwelling, beginning, as before said,

with the triclinium inaugurated by the Last Supper, but soon taking advantage of the greater size and more convenient arrangement of the private basilicas, whose name as well as whose form became typical for Christian houses of worship. The word *basilica* was used synonymously with church shortly before the time of Constantine, appearing at first in Africa, instead of the earlier designations: *proseukterion*, *kyriakon*, *dominicum*, *ecclesia*, and *conventiculum*. It is true that the author of the "Itinerarium Burdigalense," A. D. 330, thought it necessary to explain the name of the Constantine Basilica at Jerusalem. But Constantine himself, in his letter to Bishop Macarius of that city, uses the word without further ado; and it also appears, in 326, in the dedicatory inscription of the church at Castellum Tingitanum. Optatus Milevitanus, writing towards the end of the fourth century, employs the term to designate all places of worship existing before the time of Diocletian, without distinction as to form. In the forensic basilica only the name had remained, while the hall itself had been so freely developed that at last scarcely a trace of the original type is to be recognized, as for instance in the Basilica of Maxentius. The Christian basilica, on the other hand, retained not only the name but also the characteristic arrangement of the private basilica, even at a time when the church had long outgrown the domestic privacy in which the design had originated.

It is well known that the public and victorious development of the Christian Church dates from the year 312, when Constantine put an end to all persecutions by the battle of Saxa Rubra. The previous destruction of sacred edifices only served to increase the architectural activity of the following epoch. The persecutions of Diocletian were thus, in several ways, a direct advantage, and freed the ecclesiastical construction from many cramping reminiscences. The building of churches was carried on with such energy that, in a few years, private places of assemblage became unnecessary. The holding of divine service in the houses of the faithful was discountenanced by the Council of Laodicea, in the year 328. It thus came about that churches only continued in their former private places when it was possible to free them entirely from the surrounding dwelling-rooms, as was the case in S. Andrea Catabarbara,

S. Pudenziana, S. Croce in Gerusalemme, S. Giovanni in Laterano, and S. Maria Maggiore. This concentration of communities made a multiplication of the church buildings unnecessary, notwithstanding the great increase of the congregations; in fact, it was possible to supply the twenty-five parochial districts into which Rome was divided by Pope Marcellus (308-310) with smaller basilicas already existing. All these churches were of the same general form, those which were erected in place of the cemetery chapels also displaying the basilical plan.

As the type appears fully determined, even in the structures erected by Constantine, it is not possible to recognize a regular development of the Christian basilica by considering the edifices in chronological sequence. The date of some of these primitive churches is not known, and others have been subjected to altera-

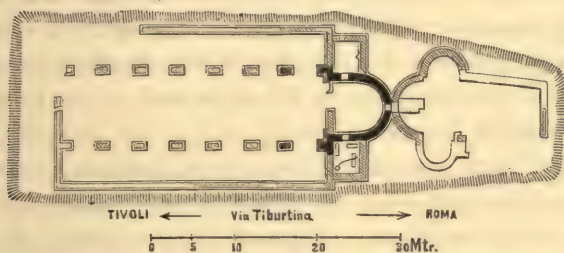


Fig. II.—Basilica of St. Symphorosa.

tions so extensive that their original disposition is no longer plain. A certain clumsy simplicity, common to the unpretentious churches of many centuries, cannot be taken as a criterion of age; side by side with such structures are often to be found magnificent and imposing works, in which ecclesiastical architecture has attained a relatively high degree of perfection. It would be natural to seek for the original type in the basilicas of those cemeteries which were early neglected and covered with débris, as for instance in the Basilica of St. Symphorosa on the Via Tiburtina (*Fig. II*), recently excavated, in that of St. Generosa on the Via Portuensis, and of St. Petronilla on the Via Ardeatina, the first two of which examples have piers, the last columns, in the interior. But the peculiarities of these buildings must rather be ascribed to the influence of earlier

edifices occupying their sites, to other local considerations, and to a general poverty-stricken and hasty construction, than regarded as definite indices of an architectural development. Among the idiosyncrasies thus explicable may be mentioned the appearance of an apse upon the long side of the Basilica of St. Generosa, and the trapezoidal plan of the body of the church in the Basilica of St. Petronilla. Of the better known cemeterial basilicas near Rome only the older part of S. Lorenzo fuori le mura, with its two-storied side aisles, and the general disposition of S. Agnese, are to be ascribed to the first construction, so that these two churches are not, in other respects, at least, important illustrations of primitive forms. The larger basilicas of the city itself are thus the most noteworthy landmarks of this phase of architectural history, and, unfortunately, the more ancient of these, which were founded during the reign of Constantine or soon after, have either been torn down and reconstructed, or otherwise totally changed in appearance. Such are S. Pietro in Vaticano and S. Giovanni in Laterano, S. Paolo fuori le mura and S. Maria Maggiore in Rome, as well as the Church of the Holy Sepulchre in Jerusalem, the Church of the Nativity in Bethlehem, the Basilica of Tyre, the Church of St. Irene in Constantinople, and a few others. In order to complete the picture, we are hence obliged to admit much later edifices to our consideration.

The early basilicas were commonly so oriented that the entrance was upon the east side. A rectangular court, called the *aithrion*, *aula*, *mesaulion*, or *atrium*, was built before them, the front of this being formed by a portico: the *vestibulum*, or outer narthex. The atrium itself was a peristyle of approximately square plan. In the centre of the court thus surrounded by colonnades was a fountain, known as the *phiale* or *cantharus*, which was used for washing, or at least for wetting the hands before entering the sacred edifice. In some few cases a baptistery was included in the atrium, as will be explained later on. After the sixth century the enclosed space was used as a burial-ground, and from this time was also known as the *paradisus*—or as the *hortus* or *cepotaphium*, in reference to the trees and bushes with which the grounds were planted, as is the custom at the present day in our church-yards and cemeteries. In its fundamental character the atrium is analogous to the outer

court of Solomon's Temple and to the Latin *templum*; its form, however, is certainly derived from the private basilica of the Roman dwelling, which was, in this respect also, the prototype of the early Christian church. It is the original atrium or peristyle of the ancient house, the great antechamber of all the living rooms, which, for ritualistic purposes, was freed with the basilica from the surrounding complex. Few of the early basilicas now known are provided with an atrium; in Rome there is but a single example, that of S. Clemente, and the superstructure of this was not built until towards the close of the ninth century (872-882). (Fig. 13.)

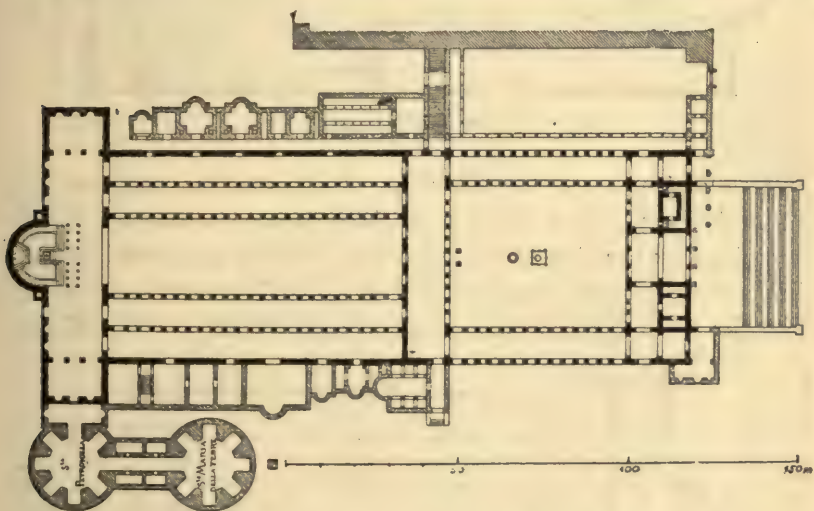


Fig. 12.—Plan of the Original Church of St. Peter in Rome.

It may hence be assumed that, in Rome at least, this addition of an atrium was exceptional; it was generally found sufficient to build before the front of the church a court (*pronaos*, *propyla*), which extended across the entire width of the façade, or appeared as a portico supported upon two or four columns. This court or portico was known as the narthex. When to an atrium there was added a transverse colonnade, before or inside the basilica, this was called the inner narthex. Having entered the portal of the basilica itself, the visitor found himself upon the small side of an oblong space, the farther end of which was extended by an apse. In rare

cases there was only one nave, without columns, as at Rome in S. S. Cosma e Damiano and in S. Balbina. The usual form of the basilica was three-aisled, being divided by two rows of columns extending along its length. The more magnificent edifices of this class were often five-aisled, like St. Peter and St. Paul at Rome

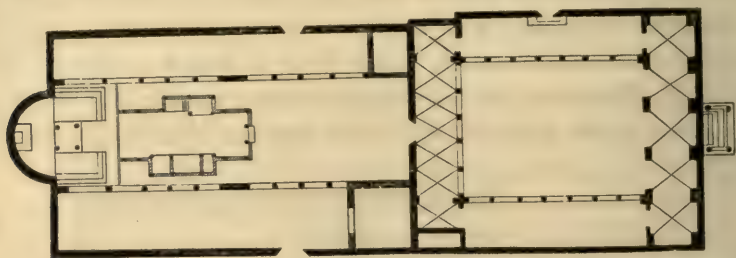


Fig. 13.—Plan of S. Clemente in Rome.

(Figs. 12 and 14), and the churches of Constantine at Jerusalem and Bethlehem. The number of aisles, however, was not always determined by the size of the building: instance the grand Basilica Liberiana (Maria Maggiore), in Rome, which has only three aisles, while the small Basilica of St. Reparatus at Orleansville in Algiers,

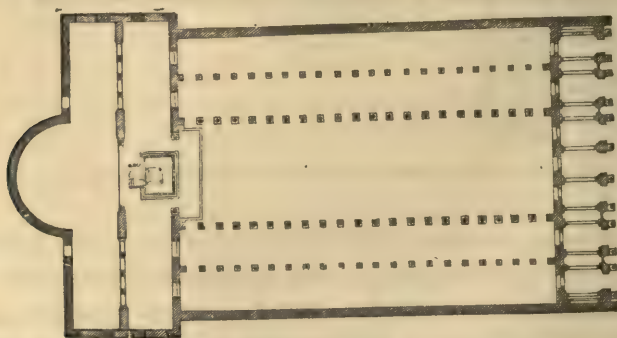


Fig. 14.—Plan of S. Paolo fuori le mura, near Rome.

built in the year 325, and the basilicas at Ibrim in Armenia, and at Sueideh in Central Syria, had five. Almost without exception in Rome, and frequently also in the provinces, the columns introduced into the earlier churches were taken from ancient monuments, chiefly from those of the Corinthian order. In later times, when

well-preserved antique columns became more rare, the supports for the interiors of the basilicas were taken from various edifices and were often of different dimensions, so that barbarous incongruities were not uncommon. Among the basilicas of Rome, that of S. Maria Maggiore is entirely Ionic; its forty-four magnificent granite columns, with their entablature, are to be ascribed to the construction of Pope Liberius (352-366). The only example of the



Fig. 15.—View of the Interior of S. Pietro in Vincoli.

Roman Doric order is S. Pietro in Vincoli, dating from the middle of the fifth century. (*Fig. 15.*) Basilicas with piers instead of columns are not frequently met with; three examples in the neighborhood of Rome are the Basilicas of S. Symphorosa (*Fig. 11*) and S. Generosa, both attributed to Constantine, and that of S. S. Vincenzo ed Anastasio alle tre fontane, built between the years 625 and 638.

The support for the wall above the columns was at first the

straight entablature of architrave, frieze, and cornice, as it had been employed in the original private basilicas. This feature appeared in the central aisle of the Constantine Church of St. Peter, and in the crypt of the older part of S. Lorenzo fuori le mura, and is still to be seen in perfect preservation in S. Maria Maggiore. But the drawbacks attending such a lintel construction were too great to admit of its retention by later builders. The fundamental nature of the classic entablature, as representative of roof and ceiling, rendered it little adapted to bear the great weight of a superimposed wall. To this must be added static considerations of the most decisive character; the very considerable free span of the architrave, from one capital to another, exposed the structure to grave dangers, inasmuch as the fracture of a single beam would inevitably result in the fall of all the masonry above it. In view of these objections the ancient Romans but rarely placed one lintel colonnade above another—as in the case of the oldest basilicas, in the *Septizonium*, etc.—wisely preferring to adopt a system of piers and arcades for buildings of several stories, and to treat their engaged columns and entablatures in relief, as a mere decoration of these massive supports. For the basilicas the beam construction had the great disadvantage that the heavily laden entablature made it necessary to place the columns so closely together that the worshippers, assembled in the side aisles, were prevented from having a good view of the religious ceremony which was being performed at the end of the nave. Something might have been gained for the support of the enormous mass of masonry by introducing the thickest and strongest columns, such as the Doric; but this would not materially have affected the relative width of the intercolumniations, which were, indeed, smaller in the Doric than in the other orders; moreover, the Doric style, as an organic whole, at this time no longer existed. It would have been more natural for the builders of the early churches to adopt, instead of the colonnades, the piers and arcades made familiar, after the Imperial epoch, by such successful structures as the forensic basilicas, notably that of Julia, and by the theatres, amphitheatres, aqueduct bridges, etc. But this system of construction appears rarely, and only in the roughest form; the piers were not ornamented with pilasters, en-

gaged columns, or entablatures in relief, and the further development of this solution of the architectural problem was reserved for the period of the Romanic style. The taste and the traditions of the early Christians led them to prefer the column which, for a thousand years, had characterized the exterior of the classic temples, and was now considered fit to maintain a similar dignity in an ecclesiastical interior.

To meet in some measure the static and artistic difficulties which thus arose, the primitive Christian builders resorted to that compromise between a colonnade and an arcade which had made its appearance, shortly before the creation of the first basilicas, in the Palace of Diocletian at Spalatro. By adopting a free-standing shaft, instead of a pier ornamented with engaged columns, a reasonably secure support was obtained for the wall above, and, what was of more importance, a greater width of the intercolumniation immediately resulted. The profile of the architrave was retained in the mouldings of the archivolt, this contradiction of the original constructive significance of the member not being felt as an objection at a time when the organic functions of the columnar style had long ceased to be understood, and the forms had become a mere decoration of the arches and vaults of Roman engineering. On the contrary, as long as it was desired to retain the round shaft in any functional importance, and to keep step with the increasing height of the Christian interior, there was no alternative but to adopt it as a support for arches instead of for beams. And it cannot be denied that, compared with the heavy piers of Roman architecture, a certain elegance was thus attained. The rhythmical movement of the archivolts gave a picturesque variety which the straight and horizontal lines of the Greeks had avoided; and the further introduction of arches and vaults in the ceiling was thus rendered more natural and harmonious in design. It is to be observed in this connection that the debasement of the Greek entablature, and loss of the sense of æsthetic reason in all columnar architecture, had long preceded the basilical era, and should be imputed to the Romans rather than to the Christians.

Since it has become known that arcades supported upon columns were employed as early as the time of Diocletian, the inquiry

as to whether they were introduced into the Constantine basilicas is of no great historical importance. At all events the form, in certain modifications, is noticed in the circular edifice of S. Constanza. The best example is perhaps the Basilica of S. Paolo fuori le mura, which was burned in 1823, and is now almost entirely rebuilt; the features in question date, however, from the enlargement of the church by Valentinian II. (A. D. 386). The arcades of S. Agnese fuori le mura, which display but few Constantine reminiscences, are not earlier than the year 686. It is certain that a connection of the columns by arches was early introduced, and that this manner of supporting the clerestory walls was only given up in those few cases where blocks of an antique entablature were available, and, by the ease with which they could be employed, overruled the better constructive principles. Even in this case the recognized objections were met, as well as might be, by various expedients, avowed or hidden. An example of an openly displayed device is seen in the three immense arches which cross the nave and support the roof and ceiling of the Basilica S. Prassede (*Fig. 16*), built between the years 817 and 824. A hidden construction of the kind exists in the same building, where three relieving arches, placed above the entablature, transfer the weight of the imposed masonry from the free span of the horizontal beam to the axes of the columns. The latter makeshift is also evident in the Basilica S. Maria in Trastevere, but this was built at such various epochs that it is now impossible to say whether the peculiarity under consideration should be assigned either to A. D. 224, 337, 357, or even to 1139. In other cases of basilicas with arches above the columns it was found necessary to increase the strength of the supports, as in S. Maria in Cosmedin, where the porticos in question are probably older than the restoration of 772-795, and in the Basilica of S. Clemente (872-882), in both of which buildings the shafts are reinforced at certain distances by broad piers.

There was generally a cornice just over the arches, this being at times surrounded by a part of the wall treated as an attica, above which the masonry was continued to the ceiling of the nave without vertical or horizontal divisions, but pierced by several round-arched windows. These windows commonly agreed in number and position with the arcades beneath them. The openings were origi-

nally closed by thin slabs of marble, perforated with circular holes in order to increase the supply of light which could not have been sufficiently provided by even the most translucent limestone; this primitive expedient has only been preserved in rare cases, as in the older part of S. Lorenzo and in S. Vincenzo alle tre fontane. Often the apertures may have been merely closed by draperies. Window-

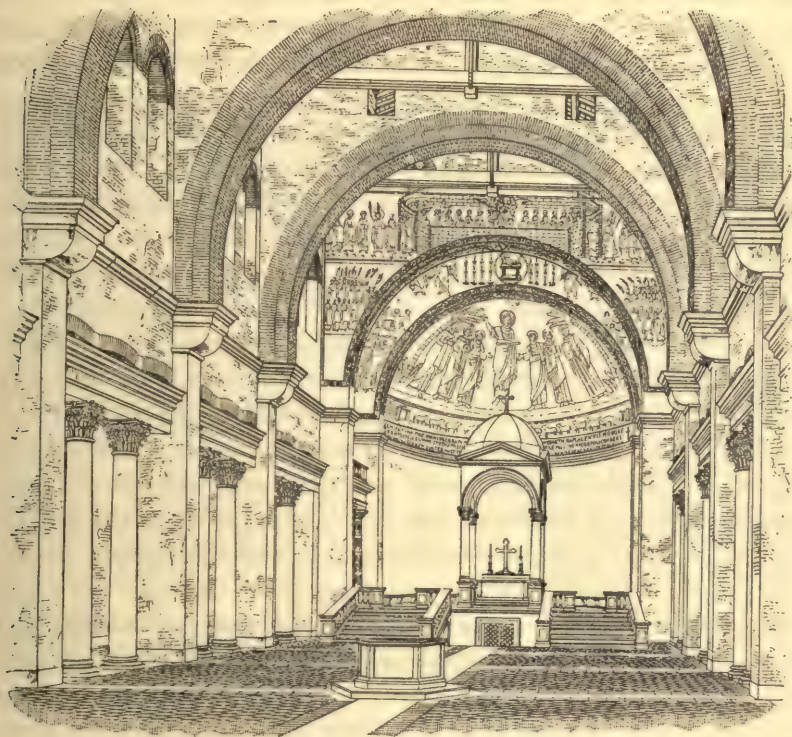


Fig. 16.—View of the interior of S. Prassede.

glass, although mentioned in the fourth century (Lactant. de opif. Dei 8), was seldom used by the early Christians, and sheets of transparent stone (*fenestrae gypseae*), were not much more common. Windows of colored glass were probably not introduced until the ninth century. (Anastas Vit. Leon. III.)

Occasionally the side aisles were doubled by being made two-storied (Fig. 17), instead of by widening the plan as in the five-aisled

basilicas. This arrangement of a gallery had been customary in the forensic halls, but appears to have been seldom employed in the private basilicas of the ancients. The result was that the clerestory windows were much elevated, and the proportionate height of the nave increased. Even in the common basilical construction the great mass of masonry above the columns had presented serious difficulties; in the two-storied edifice, although the height of the gallery columns was reduced as much as possible, the disadvantages became still more weighty. These static objections, and the lack of unity in design, more than counterbalanced the advantages derived from the extended accommodation, and from the separation of the congregation according to sex and social rank. Thus, in the Occident at least, the two-storied basilicas were in all ages exceptional; among the churches of Rome they are only met with in S. Agnese (*Fig. 17*), the Quattro Coronati, and the older part of S. Lorenzo fuori le mura.

The nave was terminated by a gable, the inclination of which did not greatly differ from that customary in classic times. The roofs above the side aisles leaned against the upper walls of the nave, abutting just below the clerestory windows. The ceiling appears originally to have been sheathed and coffered, but this antique manner of treatment was given up as early as the end of the fourth century (Optatus Milevitanus), and the roofing beams were openly displayed, the timbers being more carefully hewn and decorated by painting. This display of the roof construction had at times been employed by Greek and Roman builders. It was now made to appear as a barbarous debasement (*Fig. 17*), entirely at variance with the principles of classic architecture, by the omission of any architrave or emphasized wall plate as a support: the high wall, undivided by architectural memberment, being at best provided only with isolated brackets under the ends of the chief beams. With the exception of the termination of the apses there is no appearance of vaulting in any early Christian basilica. Districts poorly furnished with timber, such as Syria, had ceilings formed of stone lintels, a construction which, of course, greatly cramped the width of the plan. The arcades were quite incapable of resisting the great thrust which would have been brought to

bear against them by a vault over the broad nave. Indeed, the inadequate character of the columns as supports led to a diminution of the thickness of the wall quite at variance with its height, and the preservation, through so many centuries, of such carelessly built masonry of tufa and brick is due rather to the extraordinary excellence of the Roman mortar than to any wisdom of design.

At the end of the basilica opposite to the entrance there was an enormous arch, not much less in width than the nave itself, and generally supported upon two large columns standing close to the



Fig. 17.—View of the Interior of S. Agnese near Rome.

wall. This was at first known as the triumphal arch. It had become necessary by the introduction of an apse of semicircular plan, terminated above by a half dome, an extension of the nave which had found its prototypes not only in the antique forensic basilica, where it had served as the seat of the judges, but also in many Roman temples, such as that of Venus and Roma, where it appeared as a niche for the sacred statues. (*Fig. 18.*) In the larger churches the apse was sometimes separated from the triumphal arch by an interposed transept, which in height and width was

equal to the nave, and in length was either the same as the total width of all the aisles, as, for instance, in S. Croce in Gerusalemme, S. Maria Maggiore, and S. Maria in Trastevere, or was projected beyond them so as to give the plan of the entire building the form of a cross, as in the old churches of S. Pietro, S. Paolo, S. Giovanni in Laterano, S. Prassede, etc. Even in the nave, with its many columns, the lack of architectural memberment was felt, and in the transept this defect was still more apparent. With exception of a few windows, generally arranged to suit only the dimensions of the nave, the walls of the transept were quite bare, so that their extended surfaces appeared painfully monotonous. The horizontal ceiling above them was even more bald than in the body of the church. The apse received its name from the half dome by which



Fig. 18.—Section of the Basilica S. Paolo, Rome.

it was terminated; it was at first also called *concha*, *tribuna*, *exedra*, and *chorus*. It retained in great measure its original character, serving as the seat of the ecclesiastical officers: the bishop or chief priest of the church, with his attendants, taking the place which the prætor and his assessors had occupied in the forensic basilica. Generally the apse formed a projection upon the exterior of the building, and had a separate roof; but sometimes it was enclosed by other rooms which presented a straight façade upon the rear. In rare instances, such as the Basilica of St. Reparatus in Orleansville, and the Basilica of Erment in Egypt, these supplementary spaces were themselves provided with apses upon the east and west. At times smaller apses were built as terminations of the side aisles in the line of their axes; examples of this arrangement are:

S. Pietro in Vincoli, S. Clemente, S. Maria in Domnica in Rome, the Basilica of Bethlehem, etc. Architectural details were sparsely employed; even a moulding at the impost of the vault was exceptional, and the older apses had no windows at all.

The meagre and monotonous architecture of these buildings was greatly helped out by a magnificent colored decoration. Beautiful pavements of costly and tastefully arranged marble slabs replaced the mosaics of the ancients. The lower part of the walls, especially of the transept and the apse, was reveted with patterned marbles; while the upper part, either throughout, or at least upon the triumphal arch and in the apse, was inlaid with mosaics. These decorations will be described in the chapters on painting. But the other furnishings of the interior cannot, as in the case of those customary in the Middle Ages, be considered under the head of sculpture. The thrones in the apse (*cathedrae*) often display an ornamentation in relief, but the remaining appointments rarely go beyond mere architectural forms and a simple revetment. This is the case with the seats (*subsellia*) for the subordinate priests in the apse, with the plain altar-table (*mensa*) covered with a canopy supported by columns (*ciborium*),—with the gratings (*cancelli*) separating the presbytery, which often extended far into the nave,—and, finally, with the furnishings of the *ambones*, where the gospels and the epistles were read.

The exterior of the basilica, in its bareness, long betrayed its derivation from a hall originally enclosed by a complex of small rooms, and planned with no reference to its appearance from without. This simplicity and lack of decoration was perfectly in character with the contrast to Greek conceptions presented by the inner life and outer abnegation of Christianity. The concentration of interest upon the religious ceremonies carried on within, allowed scarcely a thought to be given to the exterior of the church. The constructive scheme of the building was only expressed on the outside by the different heights of side aisles and nave, and by the semi-cylindrical projection of the apse. The horizontal ceiling nowhere required a buttressing of the walls which supported it, and the same was the case with the half dome of the apse, the thrust of which was chiefly directed within. It was only in rare instances that expres-

sion was given to that æsthetic principle of all architecture which requires the forms of the exterior to set forth, as distinctly as may be, the arrangement of the interior, in such wise that a memberment of the outer walls should represent the inner arcades. Before the two basilicas of St. Apollinaris at Ravenna, which are as late as the sixth century, there was but a single example of walls decorated by pilaster-like projections, and by arches in relief, so as to form a kind



Fig. 19.—View of a Part of the Basilica of S. Apollinare in Classe.

of frame for the windows (*Fig. 19*), namely, the Basilica Pudenziana in Rome, the present disposition of which dates back to the fourth century. Generally the masonry was carried up in perfectly unbroken surfaces, and the cornices were made in the simplest possible fashion. The spoils of classic monuments, which often served to enrich the interior, were never utilized for the façades. The Christian builders were incapable of introducing original features in place of the ancient architectural garb which they rejected, and took refuge in childish tricks of bricklaying, placing the bricks diagonally, leaning them together so as to form triangles, etc. Not unfrequently they even placed the roof upon the bare wall,

without any intermediate cornice, as had been done with the ceiling in the interior; poverty of ideas and roughness of execution could go no further.

In this epoch there were but few and tentative beginnings of the tower building which was destined to play so important a part in later Christian ages. The oldest structures of the kind, those of Ravenna, were all erected after the sixth century, unless an exception be made in favor of the Campanile of S. Francesco in that city, which Hübsch assumes to be as old as the fifth century. The towers were isolated from the basilicas, with the ground-plan of which they stood in no connection. It is uncertain whether the square or the round variety is the more primitive; the former is

met with in the before-mentioned Campanile, examples of the latter are, the towers of the Cathedral and the Basilica of S. Apollinare in Classe. In towers of square plan the thickening of the corners by vertical bands was a decoration which naturally resulted from the construction; in the round ones the memberment was limited to horizontal cornices and to a few small windows which served to light the staircase within. The belfry was formed by groups of round-arched windows, and above this the roof was carried up in pyramidal or conical shape. The simple pile thus resulting agreed well with the unpretentious exterior of the early Christian basilica.

Notwithstanding its extreme bareness the appearance of the church from without maintained a certain dignity and even grandeur. The numerous and rather insignificant windows, and the low side aisles, by determining a comparatively small scale, caused the dimensions of the entire building to appear larger than they really were. This was the case, even in a more marked degree, with the interior, which was similarly influenced by the many and proportionately low columns. The view along the nave, bordered by two or four ranges of shafts, was varied and impressive, and its total length was effectively increased by the vaulted apse of curved plan. It would be difficult to conceive of a more successful arrangement than the combination of nave, side aisles, and apse for providing so extended a hall of assemblage, and for emphasizing the site of the altar where religious ceremonies were performed. Antique architecture presents no example of a better solution of this problem. The classic temple was developed chiefly upon the exterior; and while it amply sufficed as a shrine for a sacred statue and as a repository for votive offerings, would have been entirely unsuited to Christian rites, which required a gathering of the entire congregation under one roof.

In principle this architectural solution was simple; in execution it was often rich and even lavish. In the five-aisled basilicas a forest of columns, of granite or of costly marbles, almost entirely hid the plain walls of the side aisles. The clerestory, the triumphal arch, and the apse were incrustated with bright colors, gilding, and mosaics, so that here also the lack of architectural memberment was little

felt. And the ceilings, whether horizontally sheathed and coffered, or open to the beams of the roof, were generally carved and decorated with colors and gold. The bare monotony of the walls and mouldings is only felt to-day because the original paintings and mosaics have become effaced, or have entirely disappeared. Even in such a state the early basilicas still make a noble and harmonious impression, and fully convince us that the choice of this form was eminently fortunate, and worthy of retention and development for more than a thousand years.

Although the basilica is by far the most important product of early Christian architecture in Western Europe, buildings of other classes yet remain to claim our attention. The transformation of antique temples to suit Christian requirements hardly deserves consideration in this connection, common as a rehabilitation of the kind was, for but little original work was thereby introduced. In reference to such adaptations it has become the fashion (G. B. de Rossi) to maintain that the Christian emperors were wisely desirous of preventing the destruction of the temples of the ancients; but this preservation was, in reality, rather owing to an interference with selfish abuse of the buildings and their materials by individuals, than to any real respect for them as monuments of art. It is true that Constantine only demolished those fanes which had become renowned as centres of primitive religious observances, and that his immediate successors did little more than proscribe Pagan sacrifices; but as early as the time of Honorius, in the year 399, it was ordered that all the temples in the country should be destroyed, and only those in large towns be suffered to remain, "as civic ornaments." This decree was renewed by Theodosius (A.D. 426) in these words: "All Pagan temples still remaining in perfect preservation are to be destroyed, or consecrated by the sign of the cross." It was certainly a great exception when the same Emperor permitted the Temple at Osdœne to stand, and commanded the statues of the deities which were in it to be considered rather according to their value as works of art than as religious symbols. It is not clear how literally these indefinite and often contradictory ordinances were carried into effect; but it is probable that the demolition was entered upon willingly enough by the Christians, who could thus obtain the valu-

able materials used for their basilicas and other public edifices, and even for their private dwellings. By constant employment of ancient columns, entablatures, and other members, the power of independent design had become almost entirely lost to the Christian stone-cutters. The squared blocks, so easily acquired by the destruction of ancient edifices, were hardly less welcome, while the fragments of marble not thus employed found their way into the lime-kilns. It is true, the preservation of the temples from ruin would have been a matter of considerable care and expense, an exertion which the early Christians were not likely to make except in the case of those sanctuaries which had been consecrated to the new faith. The words of St. Augustine (Ep. 154), in which it is declared to be praiseworthy "that Pagan temples should be made serviceable to the public and to the honor of the true God," may with quite as much probability be interpreted as a recommendation to use the overthrown stones for the construction of churches, as to counsel the preservation and consecration of the structures themselves.

Far more important was a class of buildings destined, in later times, to be developed into a new style of architecture, namely the circular and polygonal edifices which served as baptisteries and mortuary chapels.* For these, also, classic models were not lacking: the baptisteries were analogous to the round and vaulted halls of the Roman baths, and the churches of circular plan to certain forms of antique funeral monuments, the general nature of their employment thus remaining unchanged. Cylindrical spaces, both vaulted and timber-roofed, had been frequently used by the ancients for religious purposes; but the influence of the round and columned temples, such as those of Rome and Tivoli, was but little felt by

* F. A. Quast, *Die altchristlichen Bauwerke zu Ravenna vom 5.-6. Jahrhundert*. Berlin, 1842. — W. Salzenberg, *Altchristliche Baudenkmale von Constantinopel vom 5.-12. Jahrhundert*. Berlin, 1854. — Ch. Texier and Popplewell-Pullan, *Byzantine Architecture*. London, 1863. — H. Hübsch, *Die altchristlichen Kirchen*. Karlsruhe, 1863. — R. Rahn, *Ueber den Ursprung und die Entwicklung des altchristlichen Central- und Kuppelbaues*. Leipzig, 1860. The same, *Ein Besuch in Ravenna*, *Jahrbücher der Kunstwissenschaft*. Leipzig, 1868. Separate reprint. Leipzig, 1869. — D. Pulgher, *Les anciennes églises Byzantines de Constantinople*. Vienne, 1878.

the Christian builders. The comparison of the monopteros with the circular church, like that of the oblong peripteros with the basilica, offers little but contrasts. The principal development of the pagan temple was always upon the exterior, while the ecclesiastical edifices constantly tended to an extension of the plan and ornamentation of the interior. This extension was effected by increasing the entire area, and by emphasizing the semicircular niches added to the cylinder, as well as by transferring the colonnade from without to within.

It cannot indeed be proved that the enlargement of the edifice by such niches was a recognized expedient as early as the time of

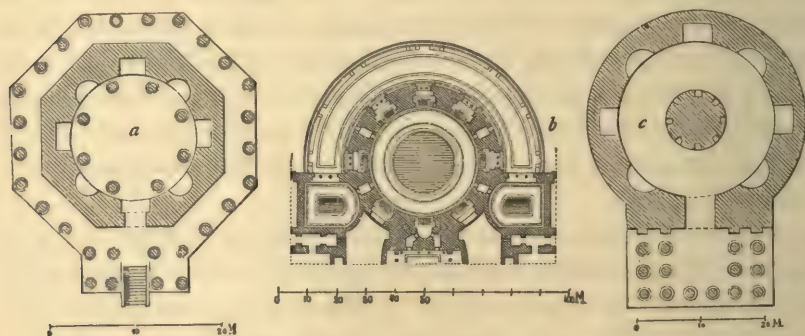


Fig. 20.—Cupolas of the late Roman Epoch.

a. So-called Temple of Jupiter at Spalatro.

b. Hall of the Baths of Caracalla.

c. So-called Temple of Romulus on the Via Appia.

the Diadochi; but it is reasonable to assume with Adler that the Pantheon of Agrippa was the perfected result of a long series of architectural experiments, and not the first application of so great a constructive system. The principle so nobly expressed in the Pantheon appears afterwards in other round temples, like that of Romulus on the Via Appia; and that of Jupiter in the Palace of Diocletian at Salona. As might be expected from the original destination of the Pantheon as a *caldarium*, we find the same general design in several *thermae*, among others in the Baths of Antoninus Caracalla, where the niches pierced the enclosing walls of the structure, and reduced the masonry left between them to free-standing piers. (Fig. 20 b). The effect of this last change was

rather to open than to extend the enclosed space; but this could be easily altered by closing the apertures with semicircular apses, as exemplified in the Roman building called in the Middle Ages the Terme di Galuccio, and in modern times the Temple of Minerva Medica. (*Fig. 21.*) In the Temple of Jupiter at Spalatro (*Fig. 20 a*) the circular plan had been transformed on the exterior to an octagon; in the Temple of Minerva Medica a polygon appears upon the inside also, the walls being divided into ten piers, connected by arches supporting the decagonal superstructure. The

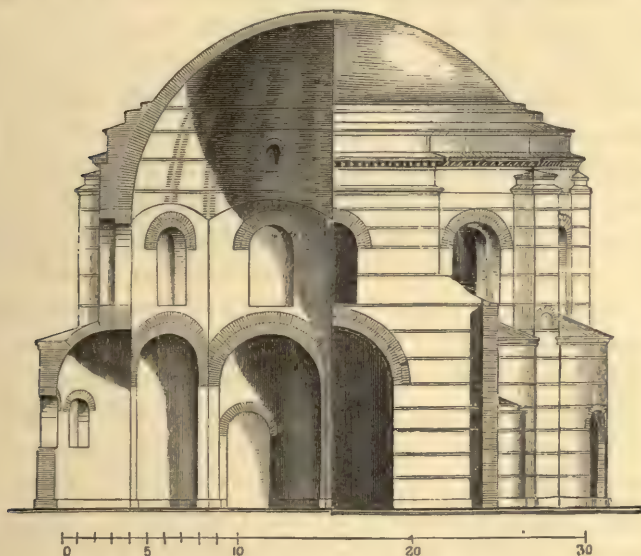


Fig. 21.—So-called Temple of Minerva Medica.

spaces between the piers are closed by apses which form semicircular projections upon the exterior, and considerably augment the area of the enclosure. The ten-sided drum is joined with the hemispherical vault in such a manner that the straight-lined walls intersect with the cupola, thus forming ten segments around its base.

The funeral monuments of circular plan were similarly provided with niches, these proving particularly advantageous as receptacles for sarcophagi. Instances are the so-called Temple of Romulus on the Via Appia (*Fig. 20 c*), and notably the Tomb of Helena, the

mother of Constantine, now known as the Torre pignattara, near the Porta Maggiore, in which the massive cylindrical wall is provided upon the interior with eight niches, alternately of rectangular and of circular plan. Both of these buildings are similar in character to the Pantheon, the exterior resemblance being increased in the latter instance by a portico. In early Christian churches the extension of the circular plan by apses was by no means uncommon, as is proved by the Church of St. George at Thessalonica, the two round chapels near St. Peter's in Rome, the octagon of St. Aquilinus near S. Lorenzo in Milan, and others. But in general the space required by the congregations was so great that a mere enlargement by niches was not sufficient. It therefore became necessary to transform the cylinder, which bore the cupola, from a continuous wall to isolated supports, as had been done in the Baths of Caracalla, and furthermore to adopt, instead of apses like those of the Temple of Minerva Medica, a concentric passage outside of these supports. The enclosed area was thus more than doubled. The oldest examples of this kind are: a church on the Via Nomentana near Rome, built to receive the body of Constantia, daughter of Constantine, who died in the year 354, and the Baptistery of the Lateran, which was probably erected about the same time. In the former (*Fig. 22*), the dome is supported by twenty-four columns, coupled two and two, and placed radially. Twelve short entablatures provide sufficient imposts for the "loop-hole" arches, which are of course larger in diameter without than within. Above them is a cylindrical drum perforated with windows. The semicircular vault, similar to that of the Temple of Minerva Medica, is a construction of brick ribs filled in with a casting of cement. The surrounding passage is covered with a barrel vault rising to only half the height of the cupola. A curious retention of former constructive methods is noticeable in the unnecessary thickness of the circular enclosing wall, which here stood in no connection whatever with the dome. A kind of pronaos was attached to the edifice.

The construction of the Baptistery of the Lateran (*Fig. 23*) displays less ingenuity, but is interesting because of a direct adaptation of the columnar system of the basilica to a concentric plan. The inner octagon is upheld by eight simple shafts, upon the straight

entablature of which a second story of columns is superimposed. The original character of the ceiling and the roof is not now to be determined, but the weak supports were hardly adapted to bear a vault of masonry. The portico, with its two beautiful columns of

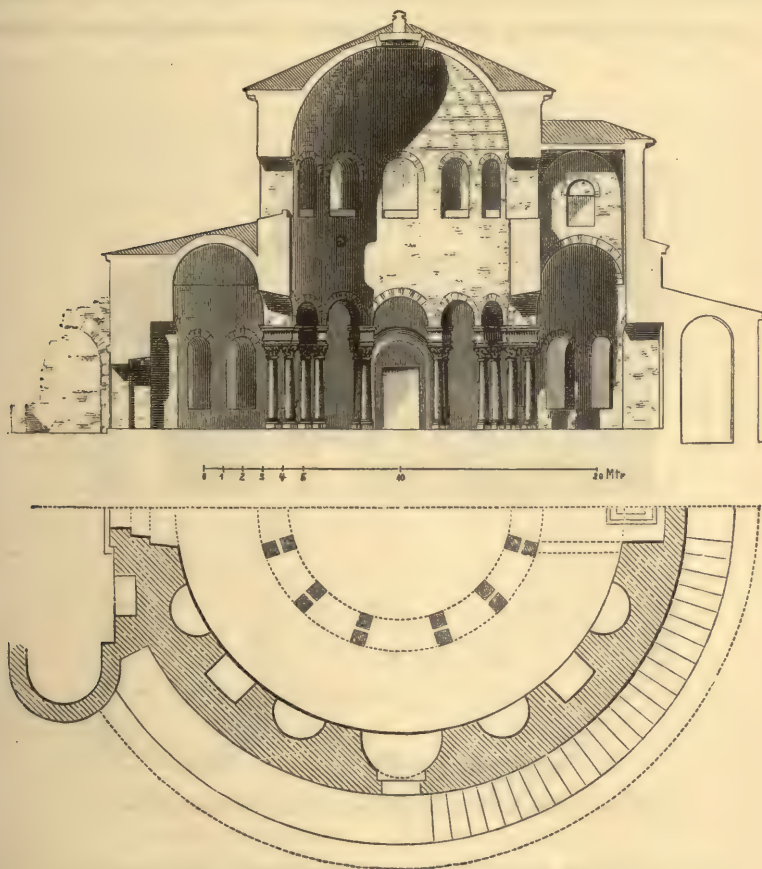


Fig. 22.—Plan and Section of S. Constanza in Rome.

porphyry, is part of the first construction, and so also is the baptismal font in the centre of this comparatively small edifice. Although baptisteries and mortuary chapels were generally built as simple cylindrical halls, without surrounding passages, other examples of the two modes of extension above described are not lacking.

The Baptistry of S. Maria rotondo at Nocera near Naples is similar to the Church of S. Costanza, differing only in that its cupola is not elevated upon a wall, but springs directly from the archivolts, so that the roof of the central space rises but little above the lower lean-to roof. The principal church of Antioch is even more closely related to the Baptistry of the Lateran. This octagonal structure

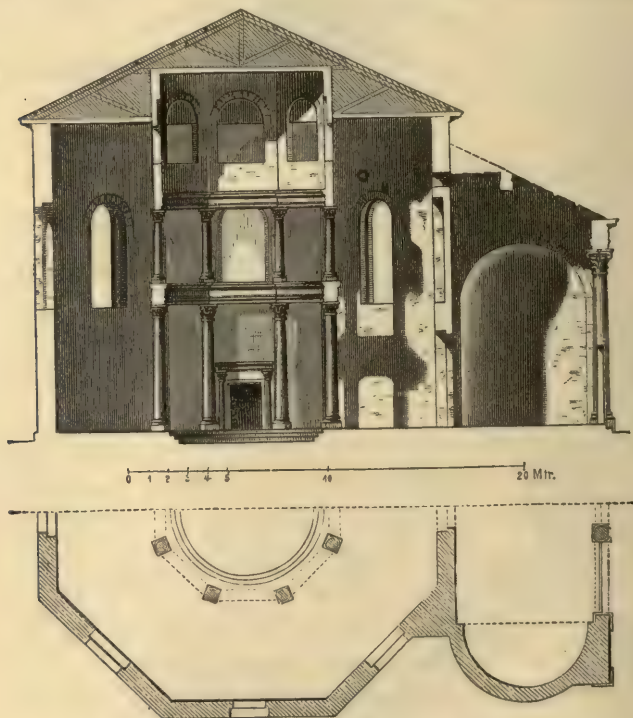


Fig. 23.—Plan and Section of the Baptistry of the Lateran.

can hardly be considered as the architectural prototype of S. Lorenzo in Milan; it may better be compared to the six-columned Baptistry of Aquileja, and to the somewhat more recent eight-columned Baptistry of the Cathedral at Novara. The combination of the basilical columnar system with a central plan, as in the Baptistry of the Lateran, attains its greatest size in S. Stefano rotondo in Rome, built by Pope Simplicius (A. D. 468–483). Instead of two stories we here meet with a duplication of the concentric pas-

sages: an extension based upon the same principle as the repetition of the side aisles in the larger basilicas. Twenty Ionic columns surround the central space. This, although cramped in comparison with the entire edifice, is still so great in diameter that the horizontal ceiling could not be constructed without the introduction of two intermediate supports, which appear in every way a disfigurement to the plan. The encircling passages are divided by columns and piers placed radially, an inorganic and ugly arrangement that, from the first, disturbed the unity of an interior which, in later times, has suffered greatly from restorations. The Mosque of Omar at Bethlehem, dated by recent authorities to the age of Constantine, shows a far better solution of the constructive problem

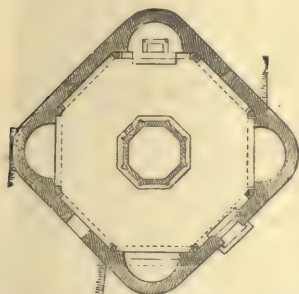


Fig. 24.—Baptistry near the Basilica of S. Ursiana, in Ravenna.

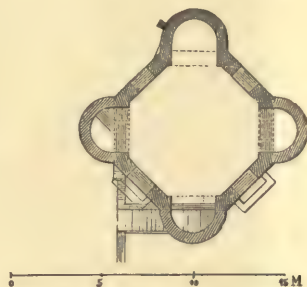


Fig. 25.—Baptistry near S. Teodoro in Ravenna.

which occasioned these difficulties. It is true, this building is of somewhat smaller dimensions.

The transformation of the circular plan to a decagon and an octagon naturally led to an important change in the design, by which the building was made to appear as a square upon the exterior, an eight-sided interior being the result of thickening certain parts of the masonry. At first the four corners were taken up by apses, the vaulting of which formed the transition from the square substructure to an octagonal upper wall. Examples of this disposition are, the Baptistery of the Cathedral at Naples, and notably two Baptisteries at Ravenna: that of the Orthodox Community near the Basilica S. Ursiana, built about the year 425, and that of the Arians, near S. Teodoro, referable to the first half of the sixth

century. (*Figs. 24 and 25.*) The peculiar advantages of the cupola above a rectangular plan became evident when the square walls of these structures were transformed to isolated supports, as had already been effected in the octagonal and decagonal edifices. The dome was thus made to rest upon four piers connected by semicircular arches, and it was possible to extend the vaulted space upon all



Fig. 26.—View of the Interior of the Mortuary Chapel of Galla Placidia (SS. Nazaro e Celso) in Ravenna.

sides. This was done both by niches, such as had already appeared in the Confessiones of the Cemeteries built before the time of Constantine (*Fig. 9*), and more successfully, by enlarging the entire plan to the form of a cross, the soffits of the four main arches being continued as barrel vaults.

It is more than doubtful whether this great advance had ap-

peared in the Constantine Church of the Apostles in Constantinople. The plan of the building was, it is true, in the form of a Greek cross, but this does not necessarily assure the existence of vaults over the nave and transepts; and the statement that the interior was provided with ranges of columns, as were the ordinary basilicas, may almost be taken as a proof to the contrary. The Church of the Apostles was long used as a place of interment for the imperial family, and hence it is not improbable that the general form of its plan may have determined that of the mortuary chapel, (S. S. Nazaro e Celso), built at Ravenna, about the middle of the



Fig. 27.—View of the Exterior of the Chapel of Galla Placidia.

fifth century, by the Empress Galla Placidia, whose tastes must have been influenced by her Byzantine education (*Figs. 26 and 27*). At all events this chapel is the first accurately dated example of the important construction before described. In it the circular base of the hemisphere was not planned to lie within the central square, but without, so that the diameter of the dome is only complete in the diagonal, the four chief arches being made to support vertical walls intersecting with the vault. If the ceilings of the Confessions above the Catacombs of Calixtus were really provided with

domes, the advance made in the Chapel of Galla Placidia is restricted to the introduction of rectangular and barrel vaulted nave and transept in place of the original apses. But the innovation, even if no more than this, was one of signal importance, and exercised a decisive influence upon Byzantine architecture.

The mortuary chapels of Constantia in Rome and of Galla Placidia in Ravenna are the prototypes of the two chief systems of design employed in Byzantine ecclesiastical edifices. The first, based in principle upon the hemispherically vaulted halls of the baths and funeral monuments of the ancient Romans, results in the extension of the central space by a concentric passage. The second, which applied to buildings of square plan a constructive scheme previously restricted to polygons, developed the subsidiary niches into extended wings of independent architectural significance, and determined the oblong, or cruciform plan,—so universal in the Byzantine period. If the before-mentioned hypothesis of the Alexandrian origin of such vaulted halls as the Pantheon of Agrippa be left out of the question, it may be broadly asserted that the beginnings of both these arrangements are Occidental. Their further development, however, is almost entirely Oriental. The example of S. Stefano rotondo at Rome, where the basilical principles are retained in an architectural relation to which they are not at all adapted, clearly shows the inability of western builders to deal with an extended concentric design. After the fall of the Western Empire, Rome remained, for nearly a thousand years, unproductive. As early as the middle of the fifth century it was surpassed in artistic creation by the previously unimportant city of Ravenna, which, having become the residence of the rulers of Italy, was brought into close relations with Constantinople and the Levant.

The removal of the imperial residence from Rome to Byzantium by Constantine, in the year 326, rendered a division between the civilization of the Eastern and Western Empire inevitable. During the fourth century the differences were little felt; but at the time when Arcadius and Honorius, the sons of Theodosius, determined the boundaries of their realms, the separation of the Orient and Occident had become definite. The ancient inheritance had fallen

into very different hands. While the tendency of the Germanic barbarians of the North was rather to disintegrate than to promote Western civilization, the Oriental influence, always present in the Eastern Empire, steadily continued to modify the character of Graeco-Roman culture and art. As had been the case a thousand years before, the Greeks were brought into contact with the representatives of primitive Asiatic civilizations on the shores of the Bosphorus. But this contact was far from becoming as fruitful as it had been in earlier times; from the union of Roman enervation with Oriental languor nothing could be born but the long decrepitude of Byzantine Christianity. The experience of old age was not entirely lacking, but the occasional arousing to important tasks was only followed by greater weakness.

At first all circumstances seemed to favor the combination of European and Asiatic ideas. The power of the emperors, as established by the beginning of the fourth century, represented the principles of Oriental despotism; and Christianity was similar in many important respects to the Oriental religions from which it had been developed. Asiatic and Roman customs and conceptions were readily interchanged, and there was no disturbance through such incompatibilities as were becoming more and more felt in the West. But the trunk was too rotten and the graft too degenerate to bring forth a fair fruit. The evil qualities of Oriental society are evident throughout: luxury, despotism, a superstitious religion, and a slavish obedience to temporal powers. Both Court and Church were Orientalized, and the most noteworthy artistic achievements were made in the service of that love of display peculiar to both. It is not surprising that, under such circumstances, the more important tasks fell to the share of architecture, but it was hardly to be expected that they could have been dealt with so successfully.

When Constantine built his new capital all the arts were still Roman. The larger churches of Constantinople were, without exception, basilicas, and this form was prevalent also in the Asiatic and African provinces. Circular edifices at this time were as rare in the Orient as in the Occident. The Rotunda over the Holy Sepulchre, the Chapel of the Ascension at Jerusalem, St. George in Thessalonica, and the round churches of Derba and Heliopolis are

indeed among them; but of these the three last were probably built after the age of Constantine. The octagonal Church of Antioch, before referred to, appears to have been of a rude and primitive construction, and the eight-sided edifice built by the father of Gregory of Nazianzos in his native city, during the second half of the fourth century, can hardly have been more important. Churches of concentric plan were few in number, not only in Africa and Asia, but in Constantinople itself, until the reign of Justinian (A. D. 527), which ruler is known to have still erected basilicas in his capital in Jerusalem, and upon Mount Sinai. The basilical system was retained for centuries, with but slight alterations, in Algiers, in the Cyrenaica, in Egypt, and in Asia Minor. The Oriental custom of separating the sexes caused two-storied side aisles to be the rule, and the only differences of style observable in these churches resulted from the helpless and incorrect imitation of classic details when the supply of antique columns and entablatures was exhausted.

Even in tracts where an almost entire lack of timber and a long tradition of vaulting would seem to have called for the introduction of stone ceilings, the retention of the basilical type was almost exclusive. This was the case with Central Syria. The land between Mount Lebanon and the desert has become peculiarly interesting from the fact that the flourishing and populous period of its history, which began with the Roman occupation, in A. D. 105, was brought to a sudden close in the seventh century, the result being that a great number of important monuments have remained unchanged by later restorations,—wonderfully preserved in a deserted country. The remoteness of Central Syria from the civilized world, together with the unusual restrictions dependent upon the nature of its building materials, combined to give a more marked individuality to the basilicas, and indeed to all the architectural monuments of the country, than is to be found in any other Roman province. This is especially the case with the group of cities in the district of Haowran, south of Damascus, where the lack of timber was most felt, and where it had been found necessary to construct even the roof and ceiling of stone. In order to reduce the width of the plan, so as to permit the employment of stone lintels, a complicated system of projecting brackets and supporting arches was introduced. In more

northern tracts a fine limestone favored accurate workmanship and masonry, and there was also timber sufficient to supply the most necessary beams. Because of this freedom from the cramping restrictions of the south we meet here with a series of buildings which, if less original, were of greater artistic perfection. The development of the façades was particularly effective, as for instance in the Basilica of Turmanin. (*Fig. 28.*) The portico, formed by a round

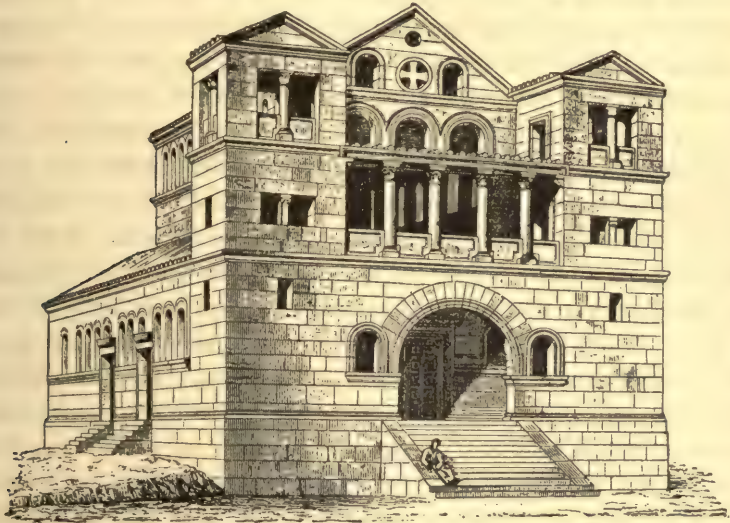


Fig. 28.—Basilica of Turmanin in Syria.

arch, is flanked upon either side by low towers; these rise in two stories to the height of the nave, where they are terminated by gables, and are provided with broad, square-headed windows, each of which is divided by a small column. The detail of the stone-cutting is of especial beauty, the influence of the debased style of Baalbec and Palmyra being less evident than that of early Phœnician architecture. The Golden Portal of Jerusalem, which dates to the sixth century, perhaps offers the closest parallel to this sharp and exact carving.

A change was made, however, during the reign of Justinian (A.D. 527–565), and the brilliant development of the concentric plan was begun in the East. Ravenna, it is true, appears in the advance

of the movement, but this city had been affected rather by Byzantine than by Roman influences, even as early as the time when it was chosen by Honorius as the capital of the Western Empire in preference to Milan, where his father, Theodosius, had resided. These relations of Ravenna to Byzantium were in great measure decided by the position and commerce of the Italian city, and were maintained after the Ostrogoths had come into power. They were important among the considerations which induced the Governor of the West, under Justinian, to take up his abode on the coast of the Adriatic during the reunion of the Roman Empire. The architectural features of Ravenna, after the beginning of the sixth century—in particular, the crabbed debasement of the Corinthian or composite capital—are met with at this period throughout the entire Eastern Empire, but not in other parts of Italy; hence it appears probable that they were imported from the Orient. Even the materials for the more important members were commonly brought from the East, not unfrequently carved ready for use, as is the case with the columns of the oldest basilicas of Ravenna, which are of marble from Prokonnesos, on the Sea of Marmora. Both the Church and the Government of Byzantium are known to have been directly concerned in the erection of S. Vitale. And attention has been called to the fact that a certain Julianus, who built the Basilica of S. Apollinare in Classe, as well S. Vitale, was not only called Treasurer (*Argentarius*), but actually held that office, assisting the latter church with the means of the Eastern Empire, by the orders of the Byzantine authorities.

If the hypothesis of Hübsch—which has been accepted by Schnaase—concerning the date of S. Lorenzo in Milan, could be proved correct, the priority of that city in the development of the concentric plan would be assured; for neither the round Church of Antioch nor the Church of the Apostles in Constantinople can be considered as prototypes of this form. S. Lorenzo is now represented only by the imitation built by Martino Bassi in the second half of the sixteenth century. Were it ascertained that the original edifice was really erected towards the beginning of the fifth century, and was consequently older than the Chapel of Galla Placidia, we should be obliged to consider it as an important predecessor of the

circular buildings of Justinian, for the appearance of which architectural history could offer no explanation. The priority of the concentric plan would then be due neither to Byzantium nor to Ravenna, but to Milan. The construction of S. Lorenzo is an admirable combination of the square and polygonal plan, the central space forming an irregular octagon, the four sides in the diagonal of which are smaller than those parallel to its axes. By the addition of piers at the corners of the square the three on each of the narrower sides form groups fully equal in static efficiency to single and massive supports, the dome thus resting upon the angles of the plan. The four longer sides of the octagon are enlarged by apses with two-storied colonnades, the parallel extension of the outer passage being thus determined. It was not thought desirable to continue the irregularity of the octagon in the compartments of the cupola, and an equalization was effected beneath the springing of the dome by projecting arches on the sides parallel with the diagonals of the fundamental square. (*Fig. 29.*)

It needs no argument to prove that so successful a system, evidently the result of long experience, could not have made its appearance a century earlier than the first examples of the extended concentric plan otherwise known,—especially in a town quite remote from those places where this peculiar architectural type is first assured. It might, perhaps, be nearer the truth to assume such a priority for the old Cathedral of Brescia, with its circular dome supported upon eight piers and its concentric passage, as the date usually adopted for the erection of this building, which assigns it to the seventh century, is by no means certain. A church of S. Lorenzo is mentioned in documents as early as the middle of the fifth century, but this may well have referred to a primitive Christian structure upon the same site, possibly a basilica, just as St. Sophia in Constantinople was preceded by an edifice dating to the age of Constantine. The concentric church of Milan may therefore be considered as later than S. Vitale in Ravenna, S. Lorenzo appearing rather as a secondary combination of the systems observable in S. Vitale and St. Sergius, than as the model of either of these structures.

S. Vitale in Ravenna and St. Sergius in Constantinople were

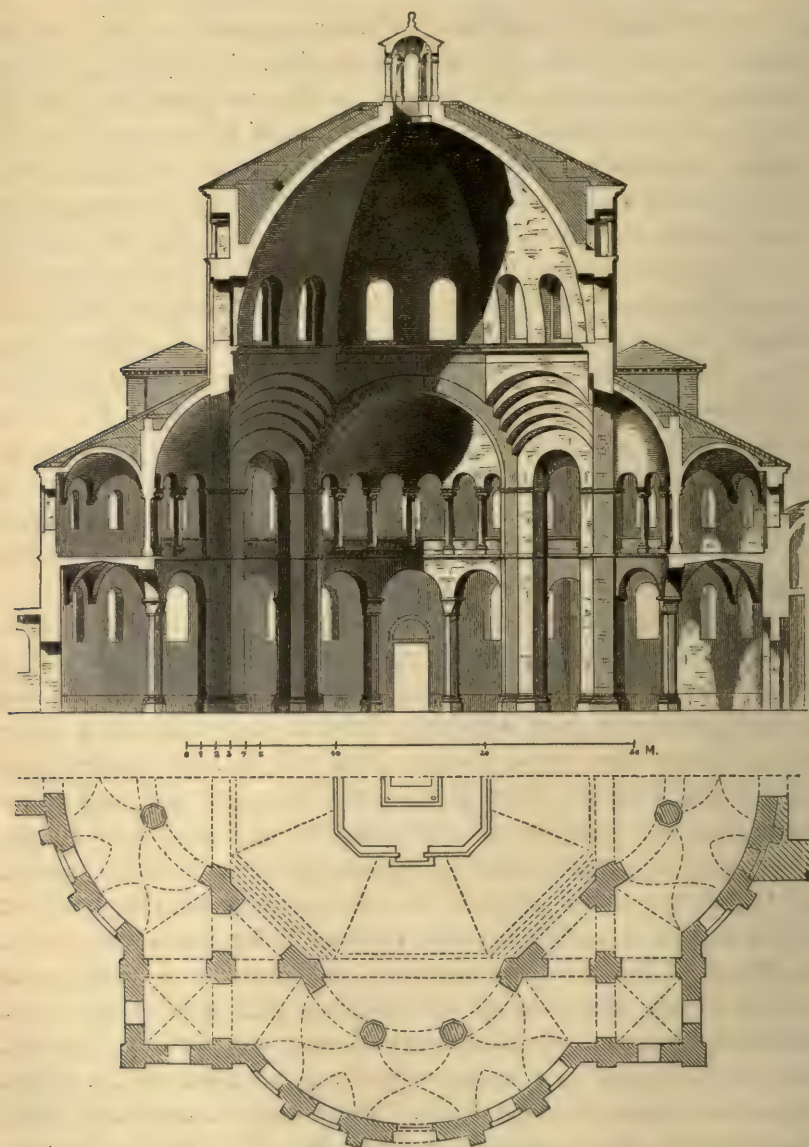


Fig. 29.—Plan and Section of S. Lorenzo in Milan.

built at very nearly the same time, the first having been begun in the year 526, the latter soon after Justinian's ascension to the throne, A. D. 527. The ground-plan of S. Vitale (*Fig. 30*) is a regu-

lar octagon, both in the central space, the dome of which is supported upon eight piers, and in the surrounding passage. In plan the sides of the high piers are radial; they are connected by round arches. Above, the octagon is transformed to a sixteen-sided polygon by small projecting niches, the predecessors of the pendentives

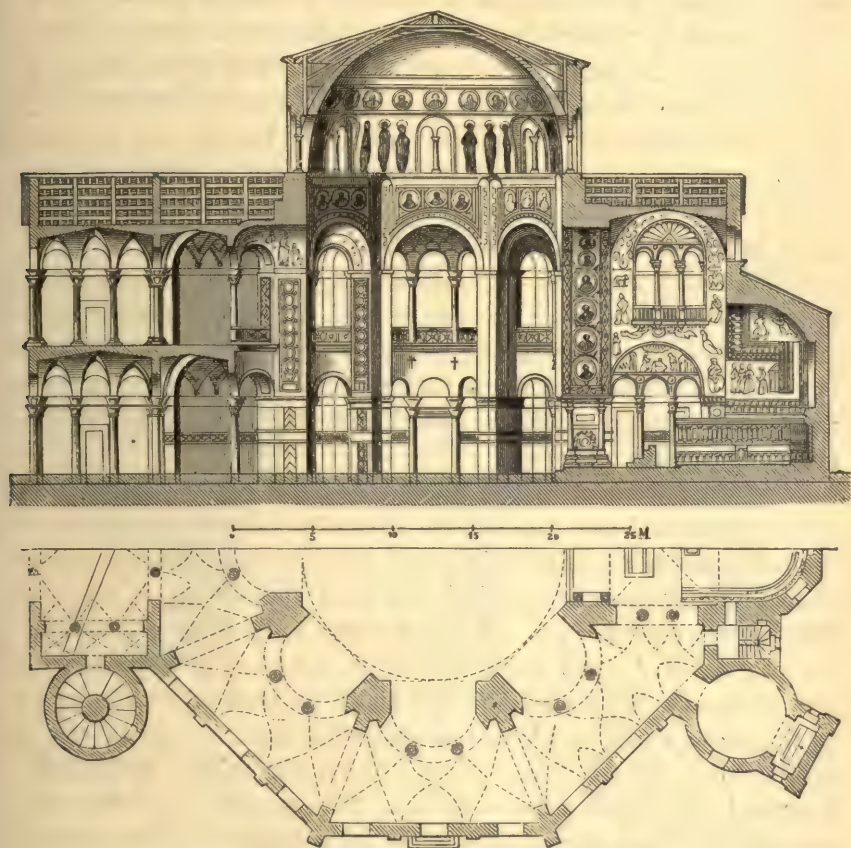


Fig. 30.—Plan and Section of S. Vitale in Ravenna.

which in later times became of such importance. The impost of the hemispherical cupola is thus very nearly circular. The round base of the dome is inscribed within the central octagon,—not without, as has been seen to be the case in the Temple of Minerva Medica. To insure lightness the vault was built of pottery vessels,

the end of each of these resting in the orifice of the one next to it, the whole being cast in cement. This manner of construction was not uncommon in antique Roman architecture, and was dependent upon the exceptionally firm character of Italian mortar. Seven of the eight large spaces between the piers are provided with niches similar to those in the Temple of Minerva Medica, in each of which four columns, in two stories, support a half cupola (conch), resting against the main arches between the piers. The eighth space, in which the altar was placed, is a rectangle covered with a cross vault, and terminated by an apse projecting beyond the octagon of the exterior, this appearing in plan semicircular within and polygonal without. The general form and the position of the windows in the apse are of a design which does not appear in Rome, but which was common throughout the Byzantine Empire, even in basilicas. The gallery extends around the entire passage, with exception of this space for the altar; its ceiling was not timbered but vaulted, an extremely complicated construction resulting from the trapeze-shaped divisions, and the intersections of the before-mentioned niches.

The general effect of the interior is quite different from that of the Occidental basilica. In the latter the extreme simplicity of the architectural conception is severe and grand; in the concentric church the far greater technical ability, in the service of Oriental imagination, produces a wonderful richness and variety. The number of great and small semicircles in plan, arches, and vaults, with the avoidance of parallel, and especially of horizontal lines, gives to the whole a soft and luxurious character quite foreign to classic architecture. The Eastern influence is further evident both in the form and color of the ornamentation. The general type of the trapeze-shaped Byzantine capitals (*Fig. 31*) appears fully determined in the lower range of columns in S. Vitale. The Corinthian and composite varieties are here no longer imitated; the most primitive outline of the capital is again taken up, the transition between the circular shaft and the square abacus upon which rests the architrave, archivolt, or impost, being effected by a straight-lined projection. The flat ornament of the plain block thus resulting is distinctly Oriental and textile in character, the borders and sides

having narrow intertwined and braided work in place of the conventionalized foliage of classic decorations. The effect of the whole was rather dependent upon gilding and the colors of Oriental tapestry than upon sculpture in relief. The same peculiarities appear in a second form of the capital, common in Constantinople, of which there is but one specimen in Ravenna; in it the echinos is of a circular or reeded horizontal section, and is covered with a fine network of conventionalized leaves and tendrils. A kind of impost upon the top of the capital is provided by a block which takes the place of the upper members of the antique entablature, and is referable rather to an Asiatic than to a Roman origin. The influence



Fig. 31.—Byzantine Capitals, from S. Vitale in Ravenna.

of the East, not that of Rome, is further evident in the colored marbles of the shafts and in the patterns of revetments and of pavements. The bareness of the brick masonry may be compared to the neglect of the exterior, so painfully felt in the early Christian basilicas; but this contrast between great magnificence within and a monotonous poverty without is quite in agreement with the conceptions of the Orient.

The chief defects of the general arrangement, especially in the atrium of S. Vitale, become evident by a comparison of this church with that of St. Sergius in Constantinople. The construction of

the latter, with its cupola supported upon eight piers, is in the main the same; but in it the pendentives have reached their full development as spherical triangles, forming, as it were, lower portions of an intersected dome. The cupola, instead of being hemispherical, is divided into sixteen compartments. One of the most important characteristics of the plan (*Fig. 32*) is the arrangement of the whole in a rectangle, which harmonized the church with the neighboring structures, and provided a more natural and fitting place for the narthex than was the case in S. Vitale. The surround-

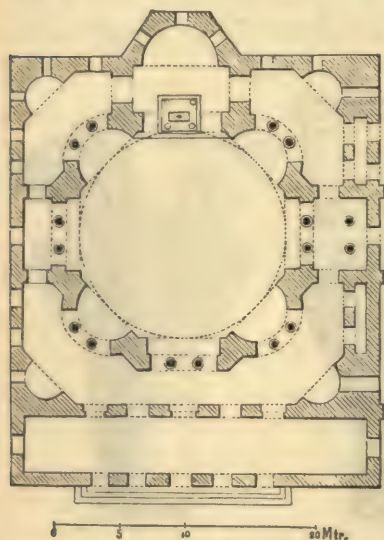


Fig. 32.—Plan of the Church of St. Sergius in Constantinople.

ing passage being planned without such enlargement by apses in the lines of the axes, as we have observed in S. Lorenzo in Milan, it became necessary to adopt similar niches in the diagonals in order that the widths of the lateral and of the corner spaces on the floor and in the galleries should not be too dissimilar. In the central enclosure the sides parallel to the square were consequently formed by straight lines. There was, of course, no gallery on the side opposite the entrance, where stood the altar.

The most important and the most perfect monument of Byzantine architecture, St. Sophia in

Constantinople (Church of the Divine Wisdom), was begun but little after S. Vitale and St. Sergius. The Constantine basilica which stood upon the site had been burned in the year 532, on the occasion of an uprising of the populace, and Justinian took advantage of this to commemorate his victory by a magnificent rebuilding. It was probably the destruction of the earlier church by the flames which led to the adoption of fire-proof vaulting throughout the new edifice. Never before had this system of construction been attempted on so extended a scale. It cannot be regarded as a

mere chance that both the architects to whom the task was intrusted were Asiatics by birth—Isidoros of Miletos and Anthemios of Tralles. In five years after the fire the new church was ready for consecration. Soon after this it was much injured by an earthquake, but was restored with even greater splendor, according to the plans of the younger Isidoros, a nephew of the first architect. It is well known that, after having served as a Christian church for nearly a thousand years, the building has become the chief mosque

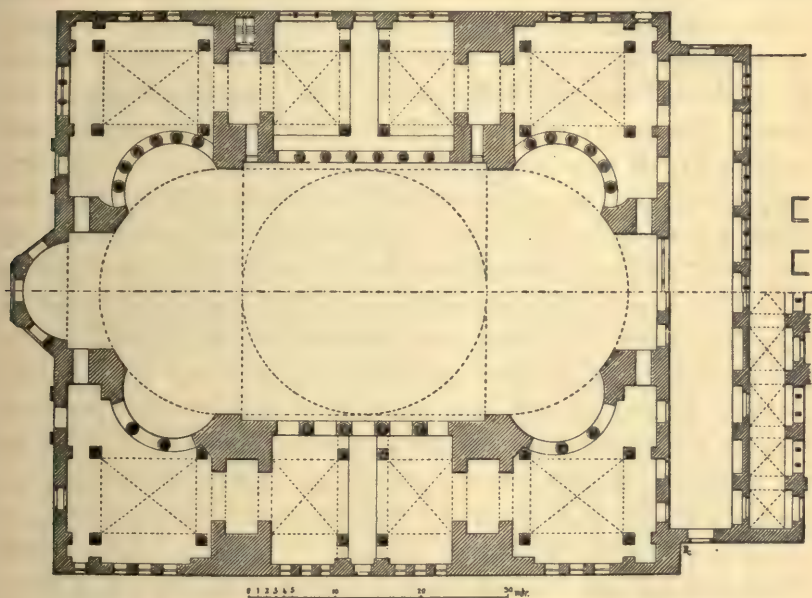


Fig. 33.—Plan of the Church of St. Sophia in Constantinople.

of the Turks, and under them has not only been disfigured, but has been left in such a state of neglect that the ruin of this wonderful monument is reported to be imminent.

The general plan of St. Sophia (*Fig. 33*) is a cross, over the centre of which is a majestic dome, 30 m. in span and almost 54 m. in height, this being supported upon arches rising from four piers. The arms of the cross in the long axis are formed by two enormous apses, the conches of which exercise their thrust against the main cupola; hence the chief piers only required strengthening by but-

tresses upon the sides. The central dome is united with the two great apses to a single nave, 72 m. in length, which is further enlarged by three subsidiary niches at either end, the one in the middle of the western side forming the entrance, while that opposite to it was reserved for the altar. The enclosure of the whole in a square, as in St. Sergius, was naturally brought about by the introduction of straight side aisles, the ends of which are bordered, in a somewhat disjointed fashion, by the lateral niches of the chief apses. The side buttresses are opened by large arches, in a manner similar to that which had been adopted in the forensic Basilica of Maxentius in Rome, but with the addition of galleries. The gradation of the circle and the semicircles of the plan, from the dome to the niches, corresponds to the rhythmical ascent of the arches and conches to the terminating cupola. The four triangles between the piers and the dome are occupied by pendentives. The bold surbated dome appears the more light and airy because pierced by forty small windows, through which a glory of light is thrown into the central space. Throughout the entire building the illumination is profuse; there are twenty-four windows in the side walls above the northern and southern galleries, and as many more in the conches of the east and west, the nave thus receiving light from nearly a hundred orifices. Great as is this total it is equalled by the number of windows in the side aisles. This brilliant light fell upon a decoration of unequalled magnificence. The hundred columns, and the revetments of the walls and piers, are of green Thessalian and red Theban marble, and of costly stones of every hue from all the quarries between Arabia and the Alps. In the presbytery the altar, the ambones, and the columns were of silver. The extended surfaces of the upper walls and vaults were covered with mosaics upon gold ground. There was no part of the interior which did not tax all the resources of a lavish age.

Great as was this magnificence it was surpassed by the artistic conception of the monument. In this enormous enclosure the advantages of a nave, or at least of an emphasized longitudinal axis, and of many of the rectangular forms of the basilica, were happily combined with the majesty, the rhythmical picturesqueness, and the safety from fire peculiar to the vaulted churches of concentric plan.

The problem of the most advantageous combination of a dome with lateral aisles was here definitely solved. The Church of St. Sophia was the proudest achievement of the Byzantine style, and for centuries was justly regarded as a model. The fact should not, however, be overlooked that this building shared in full measure the chief



Fig. 34.—View of the Interior of the Church of St. Sophia in Constantinople.

defect of Byzantine, and indeed of all early Christian architecture, namely, the one-sided development of the interior at the expense of the exterior. Its brick masonry, without revetment, displays no traces of any design beyond the utilitarian construction of the enclosure. There is something excessively clumsy in the heavy and unmembered side piers, in the exterior transition between the cupola

and the square, and in the many squat buttresses which surround the subsidiary apses. And a confused character of agglomeration resulted, even before the later additions, from the diverging lines of the windows, the varied curves of the apses, and the unrelated surfaces of the different roofs. To this it must be added that the conches, whose metal sheathing rests directly upon the vaulting, appear to sink into the walls beneath them, these being carried up vertically upon the exterior as high as the windows in the curves.

In short the impression made by the whole exterior is helpless. It is nothing more than a literal and unimaginative expression of the construction adopted for the grand interior, from which the architect was neither able nor apparently desirous to obtain an æsthetic effect.

Justinian by no means limited his exertions to this one successful task. In Constantinople alone there were twenty-five churches which were built or remodelled during his reign. Of these we need mention only the Church of St. Irene (*Fig. 35*), remarkable for the appearance in it of two cupolas of equal size, whereby the nave became even more extended and similar to that of a basilica. This building must have served as a model for the Church of St. Mark in Venice, unless, indeed, the sanctuary in Alexandria, dedicated to the same saint,

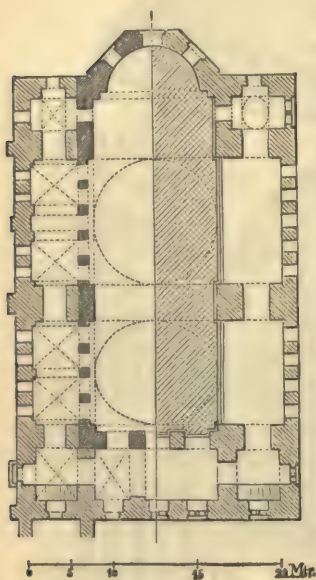


Fig. 35.—Plan of the Church of St. Irene, in Constantinople.

may have been of similar plan, and of more direct influence upon the Venetian work of the eleventh century. The creations of Justinian were to be found in all the eastern provinces—Greece, Asia Minor, Syria, Palestine, Egypt, and Northern Africa. With a love for works of engineering, and utilitarian constructions generally, which was worthy of his ancient Roman predecessors, he built, not churches alone, but bridges, aqueducts, hospitals, and caravan-saries, in great number and in every part of the country. He

did not fail to make extensive additions to the imperial palaces built by Constantine, introducing the new style in such structures as the so-called Chalke, and the summer palace, or Heræon, on the Asiatic side of the Bosphorus.

Justinian was, indeed, for the Byzantine epoch what Trajan and Hadrian had been for an earlier age; and, like them, he failed to bequeath to his immediate successors his genius as a ruler and his fostering love of the arts. As early as the end of the sixth century architectural activity had greatly diminished in the Eastern Empire; and in the following ages the endless intrigues of the court and the troubles with the iconoclasts brought monumental building almost to a stand-still. Of public edifices the palaces alone were multiplied and extended by halls and pavilions, particularly under Theophilus (A.D. 829-842). When at last Basilius, the founder of the Macedonian dynasty, which ruled between 867 and 1057, again encouraged ecclesiastical architecture, the artistic spirit had long been lost, and the churches were little more than mechanical repetitions of the types developed in the time of Justinian. Almost without exception a dome was erected above a square central space, which was extended to a cruciform plan by the wings naturally resulting from the retention of the four piers. These wings were commonly covered with barrel vaults, thus returning to the primitive arrangement of the Chapel of Galla Placidia. The angles formed by the arms of the cross at the intersection of the side aisles gave opportunity for the introduction of smaller cupolas, which were sometimes erected also above the narthex, or at the ends of the nave and transept. In order to assure to the main dome a dominating position among these groups it was often stilted upon a drum, and the general tendency was to increase the height of the elevations while reducing the size of the plan. The effect of the exterior was thereby somewhat improved, as the cupolas no longer appeared to sink into the walls, but rose hemispherically above the circle of windows, which were transferred to the drum. An effective memberment of engaged columns, or pilasters, and arches in relief was frequently applied to the apse, which continued polygonal upon the exterior. Such architectural details, however, long remained very meagre. A noticeable characteristic of churches of this kind is the alternation

of courses of brick and stone, which horizontal bands of color provided an agreeable contrast to the round outlines of the cupolas and vaults. But, while the exterior gained, the interior deteriorated, both in construction and decoration. The barrel-vaulted nave and transept, with their narrow openings to the side aisles, increased the possibility of seeing the altar from the subsidiary spaces, but the smaller apses were lost to the enclosure by being occupied by the *prothesis* (chamber for votive offerings) and by the *diakonikon* (sacristy). The cornices shrivelled up, and the colored decoration of mosaics and paintings which remained could not compensate for the lack of architectural memberment. The narthex, generally placed before the chief entrance, was sometimes supplemented by an exonarthex. When it became two storied, the upper part being used as a gynaikeion, it was found impossible to bring this gallery into any organic connection with the body of the church, so that the effect of the whole did not remotely approach that afterwards attained by the Romanic transept.

The type here described is seen in a number of churches in Constantinople now transformed into mosques. Among them may be mentioned the Church of St. Andrew, now Hodja Mustapha Pasha Jamissi, which was built soon after the age of Justinian, and is remarkable for the apses terminating the transept; the Church of St. Theodore, now Mefa Jamissi, probably built in the tenth century, with barrel-vaulted wings and double narthex. Also the mortuary Chapel of Romanus Lacapenus, now Budrum Jamissi, built in the year 918; and, similar to it, the Pantepoptes Church, now Eski Imaret Jamissi, erected in the eleventh century. *Fig. 36* displays the plan and section of the last of these edifices, which may be considered as typical. We may include in this list the Pantokrator Church, now Zeirek Jamissi, built in the twelfth century, with one dome, barrel-vaulted transept, and double narthex; and finally, the Church of the Saviour, Kahrije Jamissi, erected in the eleventh century on the foundations of a building of the age of Justinian, in which the general arrangement is made less clear and organic by the addition of a chapel (*parekklession*) upon the right side, whereby the transept is much cramped, the side apses quite isolated, and the entire interior disfigured. This building, with its

six cupolas, has become of especial importance to the history of art as the only church of Constantinople in which the mosaics and paintings upon the vaults and tympanons, the marble revetments of the lower wall surfaces, and the ornamental reliefs of the arches and capitals, have not been destroyed by the fanatical vandalism of the Turks. Although some of the good qualities of Justinian's work were still retained, the general effect is so commonplace and mechanical that but little delight can be taken in these remains.

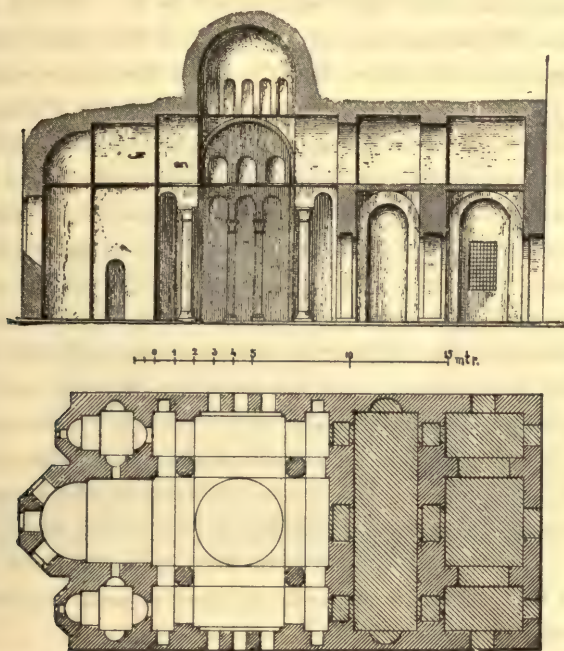


Fig. 36.—Plan and Section of the Pantepotes Church in Constantinople.

Unthinking continuance in one rut was inevitable in the nation which developed Byzantine architecture, and resulted from the despotism and slavish subjection, the dogmatism and passive reception of ecclesiastical doctrines, which characterized the civilization of the Eastern Empire.

The Byzantine style was a combination of Oriental and Occidental elements which had been united on the shores of the Bosphorus. When once its chief characteristics had been determined

it was transferred, unchanged, to the most remote provinces. Five hundred years after Roman culture had embraced the entire civilized globe, and affected even semi-barbarous tracts, the influence of Byzantium was similarly extended over the greater part of the world then known, and to lands previously quite uncivilized. The centre of culture had been removed somewhat farther eastward, but the extent of its influence was scarcely diminished. At the East, in distant Asia, the Sassanidæ borrowed more from the Byzantine stock than they had contributed to it. In the south-east newly-arisen Mohammedan art received its first and its most important impetus, even more directly, from the same source. The north-east of Europe and the Asiatic shores of the Pontos retained the Byzantine civilization longer than did the capital itself; indeed, in these countries its traces are evident even to-day. In Italy such maritime emporiums as Ravenna, and its successor Venice, were chiefly Byzantine in character; while, even in political respects, certain towns of Magna Græcia and Sicily long continued in intimate connection with Constantinople. Even the Germanic lands felt this influence: in architecture, at least, through the mediation of Italy, and in painting, with its branches, mosaic work and illumination, directly from the Bosphorus. We shall subsequently examine the art of the more important of these countries, particularly the Orient, Italy, and Germany, in reference to these factors; but the districts on the shores of the Black Sea, which were little more than provinces of Byzantium, may here be considered as supplementary to Byzantine art, in so far as they present individual peculiarities of development.

Chief among these provinces was Armenia, and, dependent upon it, Georgia.* Extending from the southern slopes of the Caucasus to the borders of Persia, these countries were affected by the same historical movements. Armenia had been Christianized, as early as the beginning of the fourth century, by missionaries sent from Rome, but its art had soon after become decidedly Byzantine. Through the spread of the monophysitic doctrines of Eutyches,

* Ch. Texier, *Description de l'Arménie*. Paris s. a.—D. Grimm, *Monuments d'architecture Byzantine en Georgie et en Arménie*. St. Pétersbourg, 1859.

however, it had become isolated, not only from Rome and Byzantium, but from all the Christian countries of the East. The result of this isolation was the development of a peculiar architectural style, showing in many ways the influence of Syria. In the ecclesiastical edifices of Armenia the central dome, with nave, transept, and four subsidiary spaces filling out the angles of the cruciform plan, was certainly a direct imitation of Byzantine models; but the appearance of gables at the ends of the nave and transept is rather referable to classic and Oriental prototypes. The polygonal plan and straight-lined roofing of the cupola also differed decidedly from



Fig. 37.—Church at Ani.

the forms customary in Constantinople. The close proximity of the country to Persia and Syria is particularly evident in the ornamental details, which are almost exclusively composed of motives taken from braided or woven work, resembling in this respect the decorations of northern Germanic art. Similar indications are to be found in the attempts to support the dome upon reeded pillars instead of upon piers. These peculiarities are well exemplified in the most important monument of Armenia, the Cathedral of the capital city, Ani (*Fig. 37*), built in the beginning of the eleventh century—an edifice which bears witness to the great architectural abilities of

this remarkable people, especially when it is considered that they could not have been affected by the northern European art of the Romanic epoch. After the twelfth century Asiatic influences continued to increase, until Armenia was almost entirely given over to Mohammedan civilization; yet, in ecclesiastical architecture at least, the native traditions were long retained.

Georgia was even more closely related to the culture of the Eastern Empire. It was Christianized from Byzantium and always remained faithful to the Greek Church. Its connection with Armenia, in artistic respects, was only temporary, and came to an end after the tenth century. The churches of Georgia are narrow in plan and tall in elevation, but these proportions were common, in later times, throughout many of the dependencies of the Byzantine Empire, as, for instance, in Greece, Servia, and the greater part of Russia.

Because of its enormous extent and the peculiar and tenacious character of its artistic work, Russia is by far the most important of the countries influenced by Byzantine civilization.* In it alone Byzantine art has continued to be practised up to the present day. Unfortunately it came under these influences in an age when the style of the Eastern Empire had declined into mechanical mannerism. Christianity, and with it a higher civilization, was not generally introduced into the Muscovite Empire before the end of the tenth century, until Vladimir the Great had been baptized at Kherson on the occasion of his marriage with the Byzantine princess Anna, A.D. 988. It was therefore not strange that the Byzantine style, when it first appeared on the steppes of the Don and the Dnieper, was quite without connection with the Greek colonies on the northern coast of the Black Sea. Kiev, the Russian capital at that time, consisted entirely of wooden huts, and the four hundred chapels which it is known to have contained shortly after the death of Vladimir, can have been only small, timbered constructions. The more important ecclesiastical edifices of the country, often built by Greek architects, were at that time certainly few in number. But

* E. Viollet le Duc, *L'Art Russe, ses origines, ses éléments constitutifs, son apogée, son avenir*. Paris, Morel 1877.

the churches of St. Sophia at Kiev, Novgorod, and Tchernigof, which must have resembled the great fane upon the Bosphorus in general arrangement as well as in name, soon exercised a decisive influence upon the rude and untrained inhabitants of Southern Russia.

The style became somewhat altered after the end of the twelfth century, when native workmen, and even native designers, took the place of architects previously summoned from Constantinople. The Byzantine traditions were affected by traits more peculiarly Asiatic: derived, on the one hand, from Armenia, through the districts of the Caucasus, on the other from the interior of the great continent, beyond the Ural Mountains. The Church of Our Lady (*Fig. 38*) near the Cloister Bogolubor in the governmental district of Vladimir, built in the year 1165, was Byzantine in general arrangement; yet it displays the influences of Armenia in the portal, low galleries, and engaged pillars, and of distant Asia in the turnip-shaped cupola and the curved lines of the roof. These influences are also evident in the Church

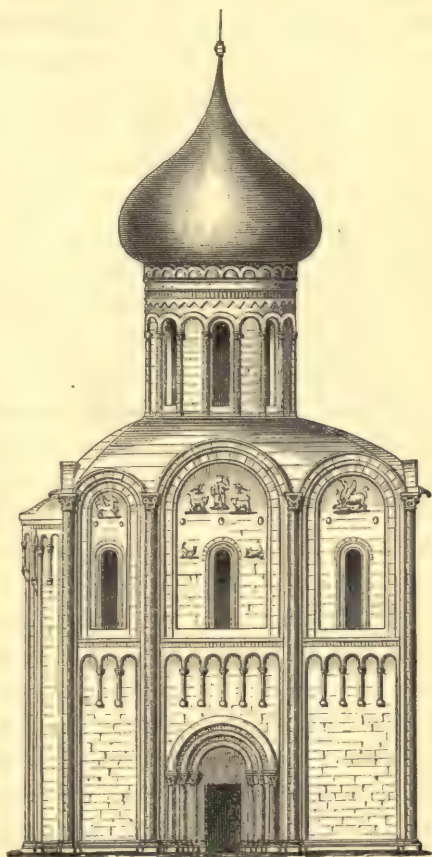


Fig. 38.—Church of Our Lady (Pakrova) near the Cloister Bogolubor.

of St. Demetrius at Vladimir, built between the years 1194 and 1197, where the arcades in relief are Armenian, while the decoration of conventionalized foliage is distinctly Asiatic.

Architectural motives from the far East naturally continued to

take the place of those from the West after the inroads of Genghis Khan had resulted in the subjugation of Russia to the Mongolians (A.D. 1237-1480). The occupation of the country by the Tartars was, upon the whole, unfavorable to the development of Russian art; still it appears that the luxury and magnificence exhibited by the commanders of these Asiatic hordes was not without its effect upon the courts of native princes and boyars, whose life had previously been of patriarchal simplicity. The Russian artists who, from choice or from necessity, followed the retinue of the Tartars, returned to their homes strongly impressed with the Asiatic spirit, and this was readily adopted by a population of kindred race. The tall, turnip-shaped cupolas, rising from low and solid masses of masonry,—the ornamentation, similar in treatment to that of India and Persia,—the use of bright and often crude colors, the capricious outlines of cornices and mouldings,—all point to intimate relations with Eastern Asia. The system of squinch vaulting, shown in *Figs. 39 and 40*, by which the transition was effected from a square plan to the tall cupolas, was determined by a constructive principle entirely different from that of the pendentives of S. Vitale in Ravenna, or of S. Lorenzo in Milan, being based upon the same Asiatic methods to which must be ascribed the complicated stalactite vaults of Arabian architecture.

By the middle of the fifteenth century a style had thus become prevalent in Russia, the chief elements of which had been derived, not only from Constantinople, but from Persia and the farther East. It is surprising that this development was not more noticeably affected by two historical events, which otherwise were of the greatest moment,—namely, the taking of Constantinople by the Turks in 1453, and the emancipation of Russia from the yoke of the Tartars in 1480. Byzantine art had taken too deep root in the Muscovite Empire to be greatly disturbed because of the occupation of its native soil on the Bosphorus by the Mohammedans; and Byzantine painting, having become nationalized in Russia, continued as general and as unaltered as it did in the districts dependent upon Mount Athos for their supply of ecclesiastical pictures. The intercourse with Asia had been furthered rather than lessened by the driving out of the Tartars. After the

middle of the fifteenth century Italian and German artists were imported, in preference to Byzantines, into the rapidly advancing city of Moscow, which, in 1328, had become the capital of the country; but by this time the peculiarities of Russian art were so fully determined that these foreigners were unable to introduce the principles of design which had been so successfully developed in

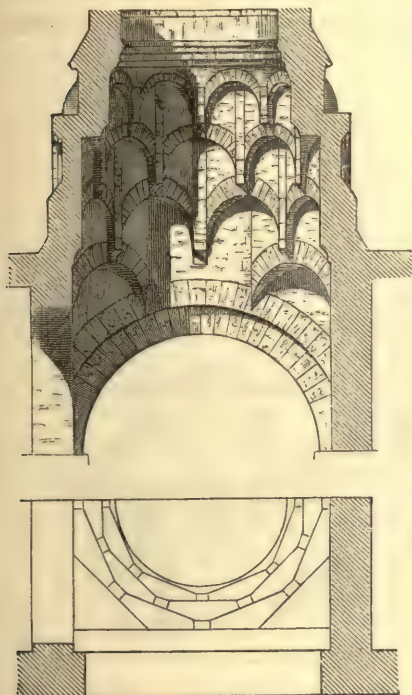


Fig. 39. — Plan and section of a Cupola-tower of the Church of St. Sophia at Kiev.

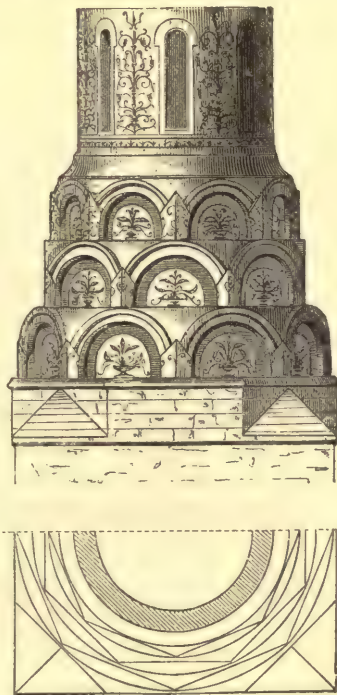


Fig. 40. — Plan and Elevation of a Cupola-tower of the Vassili Blaggenoi in Moscow.

their native lands. In 1475 the Italian architect Rid. Fioravanti was summoned from Bologna to superintend the rebuilding of the Church of the Assumption of the Virgin in the Kremlin; yet he seems to have been desired rather as a skilful constructor than as a designer, being only required to copy the Cathedral of Vladimir. Hence the nationality of the architect is only evident in the decorative details of this building, the five turnip-shaped cupolas of which

appear decidedly Asiatic. The Church of the Annunciation in the Kremlin, built between 1489 and 1508, bore a similar relation to its architect, an Italian by the name of Alvisio. The remarkable edifice Vassili Blagennoi in Moscow, built in 1554 by Ivan the Cruel, in commemoration of the subjugation of Kazan and Astrachan, shows the ascendancy maintained by Oriental elements in spite of the employment of Italian and German builders. The whimsical and overloaded decorations of India, Persia, and the Mohammedan



Fig. 41.—House of a Russian Boyar, according to the Restoration of Viollet le Duc.

East were here lavishly introduced. Towers and cupolas, with a profusion of arches, gables, cornices, and disjointed architectural forms, were so dominant as almost entirely to conceal the fundamental construction. The eighteen chapels are arranged in two stories, in a manner recklessly unrelated, and the whole is so lacking in unity of design that the plan seems the accidental result of the changing tastes and requirements of very different ages.

This inorganic character was, in great measure, owing to the prevalence of the timbered constructions introduced centuries be-

fore by the Asiatic population of Russia. The Byzantine style did not permit the application of this method of building to the more important ecclesiastical edifices, but in domestic architecture it had always continued to be practised and perfected. The dwellings throughout the country were, almost without exception, built of wood, and even in the large cities there were no houses of stone until the middle of the fifteenth century, when Occidental customs were beginning to be introduced into Moscow. The architectural forms determined by a timbered construction allow of so little variation that the wooden houses of the Alps and of Russia are strikingly similar in general appearance. The peculiarities of such Russian structures as that illustrated by *Fig. 41* are mainly referable to eastern and southern Asiatic types, particularly to those of India. In them are apparent the influence of primitive Asiatic carpentering, introduced into Russia over the Caspian Sea and across the Ural Mountains, and this element of design was maintained in full force by constant communication between Russia and the original home of the Arian race. In India timbered prototypes can be traced even in grottos hewn from the native rock. In Russia the curves of the wooden roof and the carved and turned work of the smaller members were similarly transferred to a monumental architecture of stone, and with them came also such confused and disjointed arrangements of plan as that before referred to.

It is evident that Indian and Persian motives are readily capable of combination with the art of Russia, while it is no less certain that the forms of Oriental and Italian renaissance, which have been introduced into that country by the upper classes of society, are too foreign to allow of their assimilation.

While we are unable to assent, in all particulars, to the ingenious speculations of Viollet le Duc concerning the history and prospects of Russian art, we must at least admit that a further advance of the national architecture in the directions above indicated is not only possible, but full of promise for the future.



Fig. 42.—Orpheus and the Animals. Wall-painting in the Catacomb of Calixtus.

EARLY CHRISTIAN AND BYZANTINE PAINTING AND SCULPTURE.

THE equilibrium which had been maintained by the ancient Greeks between architecture, painting, and sculpture, had been disturbed, even in the times of the Romans, by a decided leaning in favor of the first of these arts. Among the Christians* architecture fully retained this supremacy, but the relations of the two other arts were considerably altered. The important decorative field which had been assigned to painting by the ancients was extended as the architectural detail gradually disappeared, while sculpture was almost entirely withdrawn from monumental tasks and restricted to the decoration of utensils. But neither the extension nor the restriction of their exercise was of more than secondary influence upon their artistic character. A decadence had been fully declared

* L. Perret, *Catacombes de Rome*. Paris, 1851-1855. 6 voll.—Barbet de Jouy, *Les Mosaïques chrétiennes des basiliques et des églises de Rome*. Paris, 1862.—J. Labarte, *Histoire des arts industriels au moyen âge*. Paris, 1862-1866.—R. Garucci, *Storia dell' arte cristiana nei primi otto secoli della chiesa*. Prato, 1874. 4 voll.—J. P. Richter, *Die Mosaiken von Ravenna*. Wien, 1878.—G. B. de Rossi, *Musaici cristiani*. Roma, s. a. Compare also the works referred to in the preceding chapter.

before a Christian art began to grow from the antique, and continuance led only to a still deeper debasement. This evil state of affairs was made worse by the limitation of sculpture to every-day work, by the hasty execution of the paintings, and by the mechanical methods adopted by the mosaic workers.

Indications of the preponderance of painting over sculpture had indeed been perceptible as early as the Alexandrian and the Roman epochs; but the change did not become absolute until the general introduction of the peculiar views of Christianity. In contrast to the outwardness of the Greek and Roman religions, the inner life of Christianity favored painting, as more expressive of the feelings of the soul than sculpture. In the former art a comparative lack of beauty of form is much less felt than in the latter. This loss of external loveliness was an inevitable result of the general decline of all artistic work in the Roman Empire, especially after the second century. It agreed well with the spirit of early Christianity, which altogether rejected the charms of the senses, being particularly desirous of avoiding, in religious representations, the adoption of the accustomed types of antique art,—that is to say the ideal human form. In agreement with the description of the prophet Isaiah, who had announced the Messiah as of “no form nor comeliness,” and as of “no beauty,” the figure of Christ was conceived by the fathers of the Church in direct opposition to human standards. Thus the general debasement of art and the conceptions of Christianity worked together to destroy that perfection of outward appearance which is the vital principle of all art. Sculpture suffered more than painting by this combination, inasmuch as the latter could more easily make up for the loss of formal beauty by the expression of feeling. The beginnings of Christian painting, as they are seen in the pre-Constantine catacombs, are to be distinguished from the contemporary works of pagan Rome only by modest innovations, and by more hasty and untrained execution. Architectural perspectives, such as those common in Pompeii, do not appear at all. The simple compositions were divided into panels, between which were introduced vases of fruit, thyrsus-rods, hanging draperies and masks, fluttering birds, floating genii, dolphins, and various mythological beasts—the decorations being altogether similar to those of the Roman colum-

baria (Fig. 43). But this work is everywhere poorer and less artistic. The excessive zeal of Origen, who declared the admission of sculptors and painters into Christian communities to be not permissible, certainly did not result in their entire exclusion. But we find nowhere a well-planned, artistic treatment, nowhere the hand of a true artist. In short, primitive Christianity gave no impulse to the arts. Representations of sacred subjects were condemned altogether by Tertullian and Clemens of Alexandria, at the beginning



Fig. 43.—Decorated Crypt in the Catacomb of Calixtus, called that of Oceanus.

of the third century; and as late as the Council of Elvira in Spain, in the year 305, paintings of holy subjects (*quod colitur et adoratur*) were forbidden. The fear of profanation may have somewhat influenced this decision, though it cannot have been of great weight. The existence of the danger is, however, proved by the discovery, in 1856, of a *sgraffito* upon a wall on the southern slope of the Palatine, where a crucifix is shown before which the Christian Alexamenos worships the Saviour, who is portrayed with the head of an ass. The fear that artistic representations might provide cause and

proof for persecution was certainly a more important consideration; and there was always a certain solicitude that pictures might prove a temptation to return to heathen idolatry, a traditional distrust which had not been weakened through its inheritance by the Christians from the Jews. The converted Israelites had strong prejudices, national as well as religious, against art, and these prejudices were naturally accepted by the Gentiles who entered the Christian communities.

Nevertheless, the asceticism of the fathers of the Church cannot have been entirely in harmony with the conceptions of Occidental converts, who had long been accustomed to painted and sculptured representations of the human figure. The laymen were not always sufficiently imbued with religious transcendentalism to become wholly freed from the pleasures of the senses. The varied scenes of the Old and New Testaments offered as wide a scope for the imagination of the artists as had previously been found in the classic poems, which had provided the subjects for Greek and Roman works of art. The metaphors and parables, among the most salient features of the Christian doctrines, led to the common employment of allegorical representations, which had the further advantage of being comprehended only by the initiated, thus providing no incentive to profanation or persecution. Owing to these reasons allegories were favored from the earliest times, and, by the middle of the second century, had become general in Christian art. They appear simultaneously with the before-mentioned classical and mythological decorations, indifferent to the Christian conceptions of that age; and so universal was this manner of expression that Clemens of Alexandria, who was otherwise decidedly opposed to pictures and images, even attempted to reduce the allegories most commonly employed to a system.

The better known symbols, such as those occurring upon the coffers of the catacombs, can scarcely be considered as works of art. Chief among these is the figure of the cross, which at times is combined with the monogram of Christ, or is indicated by the form of an anchor or of a ship with disproportionately long main-yards: the simplest characters being regarded as the most fitting because approaching most nearly to writing. The favorite A and Ω are, in-

deed, of later date, but the word ΙΧΘΥΣ (fish) was early introduced, its separate letters being the initials of the words Ἰησοῦς Χριστὸς Θεοῦ Υἱὸς Σωτήρ (Jesus Christ the Son of God, the Redeemer). Most of the pictorial symbols are of a very simple nature, such as bread, chalice, olive-branch, palm, wreath, vine, and sheep, or fish, dove, peacock, cock, phoenix, lamb, and stag. To the same category belong the attributes of the Evangelists, which, without doubt, were derived from the combinations of winged animals universal among the earlier Semitic nations, these being at first assigned, without definite discrimination, to Matthew, Mark, Luke, and John.

Such simple ornaments, or rather secret signs, when employed for the decoration of larger surfaces, could not long satisfy either the clergy or the builders, and accordingly we find that, notwithstanding the deprecating attitude of the elders of the Church, representations from the Old and New Testaments appear among the ornamental wall-paintings in the cemeteries of the second century. These were not always merely symbolical, as is evident from the cemeteries of Domitillæ, Priscillæ, and Prætextati. That such decorations were not absolutely excluded by the Church is proved by the Necropolis of Calixtus, which was under its special supervision. Still it may be assumed that the ecclesiastical authorities were more inclined to permit allegorical presentation of mystic symbols, which were easily understood by the initiated, than paintings of biblical scenes. Examples of such symbolism are the harvesting of grapes and olives by genii,—Amor and Psyche,—and, notably, Orpheus playing upon the lyre (*Fig. 42*), the mystic virtue of which is praised by Clemens of Alexandria, before the end of the second century,—that is to say, before the statues of Christ and of Orpheus had been placed side by side in the Lararium of the Emperor Alexander Severus, and the Christian doctrines thus brought in direct parallel with antique mythology. The banqueting scenes, which had long before been common in ancient graves, were readily referred by the faithful to the miracle at Cana, to the miracle of the loaves and fishes, and to the eucharist, hence becoming popular at a very early period. The Old Testament provided subjects for historical paintings before the New, scenes prophetic of Christianity being preferred. Chief among these are the Fall of Man (*Fig. 45*), the Offer-

ings of Cain and Abel, Noah with the dove (*Fig. 44*), the Sacrifice of Isaac, Moses at the rock (*Fig. 45*) and on Mount Sinai, Daniel in the lion's den, the three youths in the fiery furnace, and Jonah swallowed by the whale, vomited forth again, and sleeping under the gourd (*Fig. 45*)—these last being of frequent occurrence as symbolical of the death and resurrection of Christ. Subjects from the New Testament are more rare, and scenes of the Passion are almost entirely lacking. The awakening of Lazarus, as typical of the resurrection of the dead, is frequent in places of burial, while the miracu-

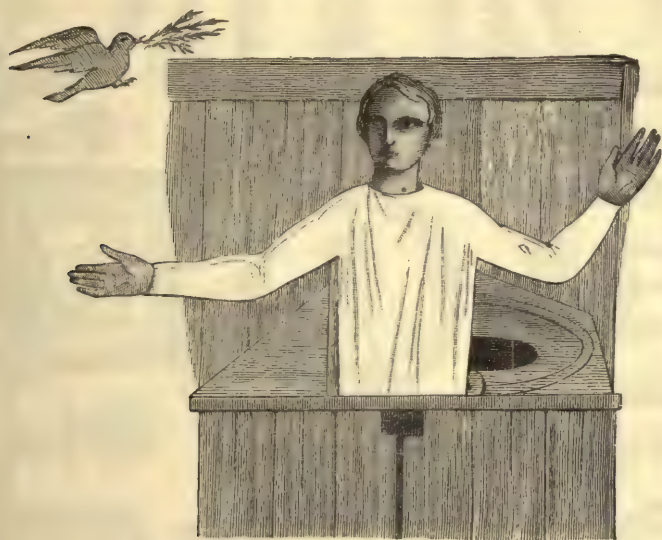


Fig. 44.—Noah in the Ark. Wall-painting in the Catacomb of Calixtus.

lous healing of the blind, the lame, and the woman with the issue of blood are also represented. The parable of the Good Shepherd (*Fig. 45*) offered a most fitting illustration of the relation of Christ to the Church, and was especially common because free from the iconic tendencies so displeasing to the fathers. Images of Christ himself do not occur among the paintings of the pre-Constantine catacombs, and the Virgin was only introduced in the scene of the Adoration of the Magi. Portraits of the Apostles and of eminent individuals of the Christian community are also met with, the dead being usually shown in an attitude of prayer with uplifted hands.

The method of painting was either fresco or secco, according as it was executed at the same time with the plastering or was afterwards applied upon an old and dry ground. Color and modelling were equally rude and inartistic, the former being often restricted to local tones without effects of chiaroscuro, the latter limited to a simple drawing of brown lines. The whole design was very com-



Fig. 45.—Fresco in the Catacomb of S. Agnese. The Good Shepherd and other representations.

monly carried out in two colors, a reddish brown and a bluish green. The ornamental details were rapidly painted with a full brush upon the light background, without geometrical exactness, but in well subordinated colors; decorative foliage, birds, and genii sometimes appear in a monochromatic treatment. The execution is never careful and accurate, but a certain taste and facility are observable. As

might be supposed from the serious frame of mind natural to painters working in these subterranean tombs, the general character of the representations is quiet and even solemn, but they offer little expression of that inner life of the soul which devout believers of the present day so often expect to find. The number of figures taking part in the sacred scenes is small and their attitudes conventional, so that the general impression is rather symbolic than historical and real.

Before the age of Constantine Christian painting was almost entirely restricted to the subterranean cemeteries. It appears probable that the places of worship above-ground were as rarely decorated with Christian subjects as they were erected for Christian purposes. The Basilica of Junius Bassus in Rome, built by him in the year 317 for pagan use, and given to the Church in 470 by Fl. Valila (afterwards known as S. Andrea in Catabarbara), proves how little objection the early Christians made to the retention of profane wall-paintings already existing in halls consecrated to the new worship. Pope Simplicius considered it only necessary to give the apse a Christian character by the introduction of new mosaics, and the walls of the Basilica retained their original adornments until the unfortunate demolition of the entire edifice in the sixteenth century. These decorations (*Fig. 46*), known by descriptions and drawings made shortly before their destruction, were executed in a truly magnificent incrustation (*opus sectile*), of the most costly materials, and represented various mythological subjects and scenes from profane history. In the times before Constantine the Christians appear to have been even more conservative. But when, after the cessation of the persecutions, Christianity emerged from the gloomy catacombs, and buildings were erected solely for ecclesiastical purposes, painting found an important field in the enormous wall-surfaces of the basilicas, which needed the adornment of color the more because of their poverty in architectural memberment.

This adornment took the form of mosaics, a manner of decoration which had been employed for floors from the earliest times, but which previously had only in rare instances been extended to walls. The introduction of perspective views, and especially of such figure subjects as occur in the mosaics of Pompeii, is not aesthetically jus-

tifiable in the ornamentation of a level floor, which should be restricted to flat patterns. It was with a just appreciation of this principle of design that the Christians greatly simplified the inlaying of their pavements. For the elaborate decoration of walls, on the

other hand, mosaic work offered a rich and monumental method of incrustation, the brilliancy and permanency of which were effective even when the artistic design and execution were mediocre. This work was not intended to be seen in very close proximity; it was applied only to the upper part of the walls of the apse, the triumphal arch, the nave, and sometimes, also, to the façade of the basilicas, and to the conches and cupolas of the churches of concentric plan,—the lower part of the walls being simply reveted with slabs of colored marble.

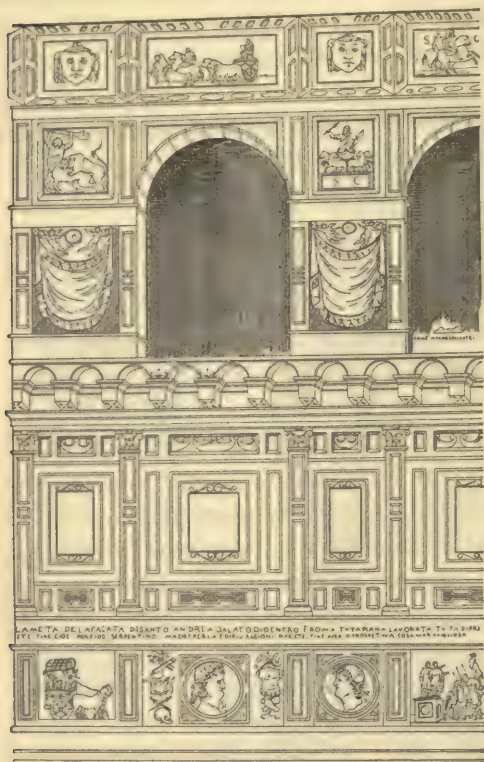


Fig. 46.—Wall-decoration of the Basilica of Junius Bassus. After a drawing by A. da Sangallo, now in the Barberini Library.

In the time of Constantine pictorial mosaics must have been rare.

In those parts of the Baptistry of the Lateran and of the Mortuary Chapel of Constantia where the original construction still remains, decorations of this kind are limited to golden foliage upon blue ground, with birds, genii, and various Christian symbols in the panels. The first connected compositions probably made their appearance in the apses. The oldest known example is the mosaic of

S. Pudenziana in Rome, dating to the end of the fourth century (*Fig. 47*). It represents Christ enthroned in the middle of a low exedra, beyond the tiled roof of which are seen the buildings of the Heavenly Jerusalem and a hill surmounted by a cross. At the feet of the Saviour sit ten of the twelve apostles,—the two missing, and the lower part of the bodies of those remaining, were obliterated during the restoration made in the year 1588. The characteristic attitudes and the expression of the faces are still apparent,—the relative importance of St. Peter and St. Paul, who are seen in profile, being indicated by their positions next to the throne. Behind them



Fig. 47.—Mosaic in the Apse of S. Pudenziana in Rome.

stand two women holding wreaths, who may be considered either as S. Pudenziana and St. Praxedis, or as representatives of the Church of the Jews and the Church of the Gentiles. The symbols of the Evangelists float above in the blue sky, which is streaked with light clouds. The design is not without life and truth, being in this respect equal to the best frescos in the catacombs of the third and fourth century, while it far surpasses them in correctness and beauty of form and in mechanical execution.

The superiority of the mosaics over the wall-paintings is not due to any improvement in the general style of art; this could only have been brought about through the introduction of entirely new

elements. But the influence of the altered position of the Church in regard to pictorial decorations is sufficiently plain,—an active encouragement having, in the course of years, taken the place of the decided disapprobation at first felt in regard to all representations of the human form. Constantine, Valentinian, Valens, and Gratian had accorded important privileges to painters and mosaic workers, and these, as well as other emperors, had repeatedly recommended the preservation of antique masterpieces as the best models. The effect of this was greatly to improve the training of all artists, and mention is particularly made that in Antioch the schools of the rhetoricians and philosophers were deserted, while the studios of painters and sculptors were crowded. But all such protection and encouragement were of little more avail than is medical aid to a hopelessly decrepit body: the limits of life might be somewhat extended, and disease for a time arrested, but the organism could not be rejuvenated by such means.

The works of the fifth century show a still further decadence, well illustrated by such examples as the mosaic on the front wall of S. Sabina, executed between the years 422 and 432, representing personifications of the Church of the Jews and the Church of the Gentiles,—the series of biblical scenes on the lateral walls of S. Maria Maggiore (A. D. 432–440),—and especially the mosaic upon the triumphal arch of S. Paolo fuori le mura, which is to be ascribed to the year 440 (*Fig. 48*). The last of these is so inferior to the historical subjects depicted in S. Maria Maggiore, that were it not for the certainty derived from an inscription of the Empress Galla Placidia, we should hardly believe so great a deterioration possible in so short a time, and should have assumed a much later date. The figures of the apostles at the bottom of the arch still maintain a certain classic correctness and dignity, but the drawing of the breast and the expression of the face of Christ are barbarously distorted, and the gestures of the twenty-four elders of the Church helpless and wooden. The background of gold, at that time not common in Rome, and the Byzantine nationality of the Empress who presented this mosaic to the Church, naturally lead to the supposition that we have here to deal with the work of designers from Ravenna, who had not been able to profit by the opportunities for

studying the antique models through which the artists of Rome itself still preserved the slight degree of classic excellence apparent in the decorations of S. Maria Maggiore.

The characteristics of the mosaic upon the triumphal arch of S. Paolo are to be considered rather as due to what may be called proto-Byzantine influences, than taken as direct evidences of the debasement of Roman art in the fifth century. On the other hand, the mosaic in the apse of SS. Cosma e Damiano (*Fig. 49*), which is nearly a hundred years later than the preceding work, is in every



Fig. 48.—Mosaic on the Triumphal Arch of S. Paolo fuori le mura in Rome.

way an example of such debasement, and may perhaps be regarded as the last monument of early Christian art in Rome. The figure of Christ stands in the centre, the right arm uplifted in the attitude of teaching, while the patrons of the Church, St. Cosmo and St. Damian, advance upon either side, preceded by the four chief apostles. In general composition, as well as in the proportion of the figures and the drapery, this work is far superior to that in S. Paolo; but even here a certain senile degeneration may be observed in the heads of the saints, and the color and shadows of the garments display a greater degree of hardness than can be explained

and excused by the inherent defects of mosaic work. The diligence and exactness required by this mode of execution had indeed been of beneficial effect, and the hasty and careless style of the frescos in the catacombs had been entirely avoided; but the inlaying of small cubes of colored glass and stone was no less attended with signal disadvantages. A harmonious blending of color was extremely difficult to attain, and the greatest possible care in execution could not compensate for the lost sense of artistic composition,



Fig. 49.—Mosaic in the Apse of SS. Cosma e Damiano in Rome.

and of just relation between the figures and the landscape of the background, which, in some slight degree at least, had been maintained in the mosaic of S. Pudenziana. In later works the figures stand isolated like statues, the heads are all full-face, while the sky and landscape, entirely without perspective, are nothing more than conventional indications.

It would not be justifiable to speak of a style of mosaic peculiarly Roman; but it is probable that, throughout Italy, the workers in this branch during the fifth and sixth centuries came under Roman influence, equally with all other Italian artists of that period.

The mosaics of Milan, in SS. Satiro e Aquilino, and of Naples, in the Baptistery of the Cathedral, do not contradict this assumption. In Ravenna, however, there appears at an early period a certain independence, or, to speak more correctly, a combination of Occidental and Oriental motives in which the latter are the more prominent. As has been pointed out in treating of the architecture of Ravenna, this combination was determined by the position and commercial relations of that city, even at the time when it was still the chosen capital of the Emperor of the West; and these influences naturally became still more decisive when it was subsequently degraded to a mere official residence of a Byzantine exarch, in the middle of the sixth century, after fifty years' subjugation to the Ostrogoths.

The mosaics of Ravenna, antedating the age of Justinian, do not greatly differ from contemporary Roman works. The artistic character of those in the Baptistery of the Orthodox sect (S. Giovanni in Fonte, built between the years 425 and 430) and those of the Mortuary Chapel of Galla Placidia (SS. Nazaro e Celso, built before the year 450) is superior to that of the mosaics in the Basilica of S. Paolo in Rome; and these effective decorations have the advantage of being seen entire, and in a comparatively perfect state of preservation. The figures of St. John the Baptist in the cupola of the Baptistery, and of the Good Shepherd in the tympanon above the entrance to the mortuary chapel, have, in composition, drawing, action, and picturesque conception, better preserved the antique traditions of good workmanship than any Roman mosaic, with the exception of that in the apse of S. Pudenziana. Still, the superior beauty of these figures may, in great measure, be attributed to the individual ability of the artists who executed them. And, as in all the other decorations of these two buildings, a certain coarseness of detail is apparent, from which the Roman works were free, at least until the beginning of the sixth century.

It is not strange that the mosaics, dating to the period when Ravenna was occupied by the Ostrogoths, A.D. 497 to 553, often show the work of untrained hands. This is the case in the Baptistery of the Arians (S. Maria in Cosmedin) and in the Court Church

of Theodoric (the Basilica of S. Martino in coelo aureo), afterwards known as S. Apollinare nuovo. The influences which introduced into architecture the barbarous style of the Palace façade and the Tomb of Theodoric appeared also in the incrusted decorations of the walls,—closely as these were imitated from earlier works of the kind in Ravenna. The mosaics in the nave of S. Martino in coelo aureo, for the greater part contemporaneous with the erection of that building, are almost perfectly preserved, and are particularly interesting on account of their subjects: the scene of the Passion being represented, with omission of the more painful episodes of the Scourging of Christ, the Crown of Thorns, and the Crucifixion.

After the expulsion of the Ostrogoths from Northern Italy the country became a Byzantine province, and Oriental influences entirely superseded these traces of northern barbarism. As has been previously shown, in the consideration of the architecture of the Eastern Empire, the characteristics of Byzantine art had been determined, in the new capital on the Bosphorus, by that combination of Græco-Roman and Oriental elements from which resulted the popular civilization, the religion, and the imperialism of the East. These characteristics are even more strikingly evident in the paintings and in the monumental decorations than in the architecture of Byzantium. They exhibit most clearly the servile subjugation of the people, the luxurious and magnificent ceremonial of the Court and Church, the crafty despotism of the emperors, in contrast to the republicanism which still retained its hold upon the western world, and the low superstition which had taken the place of the comparatively apostolic relations of Roman Christianity.

Some evidences of this are observable in Ravenna after the division of the empire in A. D. 395; but when the city was made the residence of the Exarch of the East it became even more Byzantine than Byzantium itself. Only a few years after the completion of the classic mosaics in the apse of the Roman Basilica of St. Cosmo and St. Damian, there appeared in Ravenna a number of Byzantine works by which a new era of Christian art may be said to have been inaugurated. Among these are the lower series of mosaics in the nave of S. Apollinare nuovo, and a fragment of a portrait of Justinian in the chapel of All Saints in the same church (*Fig. 50*),—the

mosaics in the private chapel of the Archiepiscopal Palace,—and, notably, those in the choir of S. Vitale, which building has been already described as one of the earliest churches of extended concentric plan. The forensic dress, still universal in Roman representations, is here exchanged for courtly and liturgic garments, the forms and attitudes being cramped and stiffened to a mere parade,



Fig. 50.—Mosaic Portrait of the Emperor Justinian in the Chapel of All Saints of S. Apollinare nuovo in Ravenna.

which takes the place of all freedom of action, truth to nature, and, consequently, of all ideal beauty. The proportions of the human body are neglected and incorrect, and even those parts, like the face, hands, and feet, which are not hidden by the pretentious garments and accessories, have lost not only their natural but their traditionally correct forms; the extremities are more and more reduced in size, and a certain senile expression appears in faces both

old and young. A dead and cold asceticism has taken the place of observation and delight in healthy nature.

This change of style is most noticeable in the treatment of unusual subjects. In the accustomed religious representations a certain imitation of the early Christian and Roman types was unavoidable, as is evident in the group in one of the conches of S. Vitale, where Christ appears enthroned between St. Vitalis and the founder of the church, Bishop Ecclesius,—this being in all probability the oldest mosaic in the building, and consequently referable to the time before Justinian. Very different is the portrayal of those new subjects which in themselves agreed so well with Byzantine conceptions, such as the two ceremonial pictures in the choir, representing upon one side the Emperor Justinian, surrounded by his senators and guards, and accompanied by the Bishop Maximian and his ecclesiastical officials, and on the other the Empress Theodora, carrying a votive offering and followed by the ladies of her court. (*Fig. 51.*) In contrast to the almost contemporaneous mosaic in the apse of SS. Cosma e Damiano the modelling is here nothing more than a hard outline of straight bars. As was once the case in Assyria, the diadems of pearls, the necklaces and embroideries, the patterns of stuffs and borders are made the most prominent and important features. The lineaments of the stiff and ugly faces are rendered in hard, broad lines; the staring eyes are too large; the cramped hands and helpless feet have lost all organic connection with the body, of which but little is to be seen behind the long and badly drawn garments.

In the other mosaics of S. Vitale we find the same stiffness and awkwardness of the outlines, the same senility and vacancy of the features,—in short, the same perversion of old artistic traditions, and incapacity in dealing with new tasks. The mannerism is so pervasive that all individual character, all organic movement, all human sentiment is entirely absent. The study of earlier works of art, which had long taken the place of a direct observation of nature, was neglected. In order to convey to the observer any conception of the scene depicted, the chief attention was devoted to the merely exterior accessories; the lifeless forms were imitated from conventional types, which, in course of time, had been empirically deter-

mined. These types, far removed from any ideal perfection of the human body, these figures of saints without physical and without psychical character, were at last to be distinguished only by the names inscribed at their sides. The value of the mosaics was reduced to the general effect of their colors as seen in the dim interior of the Byzantine churches, the richness of this decoration being dependent chiefly upon the harmonious tones of the patterned stuffs and jewelled borders of the draperies, the designs of which were generally borrowed from Oriental motives.



Fig. 51.—The Empress Theodora with the Ladies of her Court in S. Vitale. Mosaic in that Church.

In Ravenna the difference between the mosaics of S. Vitale and the others of this debased style is so slight that it is difficult to class them chronologically. The incrustated decorations in the Basilica of S. Apollinare in Classe are even harder and stiffer than those of the before-mentioned church, but this may perhaps be explained by the fact that few of these works are contemporaneous with the original building of the Basilica, which was dedicated in the year 549, while those in the lower part, representing the ceremonial grant of privileges to Bishop Reparatus (?) by Constantine IV.,

Heraclius, and Tiberius, may be as recent as the years between 672 and 677. Moreover, the restorations of these mosaics have been so numerous that the conclusions arrived at from their present appearance are perhaps deceptive.

In Rome, also, after the end of the sixth century, two influences combined to hasten the degeneration of mosaic work: on the one hand the introduction of barbarous elements into the native art; on the other the imitation of Byzantine models. Both these tendencies are recognizable in the mosaic upon the triumphal arch in S. Lorenzo fuori le mura, which was probably executed under Pope Pelagius II. (A. D. 578-590), and now appears upon the inner side of the arch because of the addition, in later times, of a chief nave in place of the original apse. The same characteristics are evident in a similar mosaic in the apse of S. Teodoro, on the north-western slope of the Palatine, and especially in the extensive incrustations in the apse of S. Agnese, which probably date to the original construction of that edifice in the years between 625 and 638 (*Fig. 52*). The latter example is without parallel in stiffness and mannerism, in the excessively long proportions of the human body, the cramped and diminutive extremities, in flatness of the draperies and the formlessness of their wide borders. The works subsequent to the middle of the seventh century, like the mosaics in the apse of S. Venanzio, a chapel of the Baptistery of the Lateran, and those of S. Stefano rotondo are similar in general character to the decorations of S. Agnese. The mosaic on the triumphal arch of S. Nereo ed Achilleo, near the Baths of Caracalla, those in the apse of S. Maria della navicella on the Caelius, and in that of S. Prassede, show that the influence of the energetic Leo III., the contemporary of Charlemagne, could do little more than delay for a short time the continually progressing debasement of the art. The mosaics in the apses of S. Cecilia and S. Marco are again distinctly inferior to those preceding them, and mark a further stage in the decline towards barbarism.

In the Eastern Empire, the true home of Byzantine art, fewer specimens of the earliest mosaic works have been preserved than are found in Ravenna and Rome. Indications seem to show that, in the ages before Justinian, painting in the Orient was almost en-

tirely dependent upon Occidental schools,—the influence of the farther East, in this branch of art, not making itself felt before the middle of the sixth century. The mosaics in the Church of St. George in Salonica are similar in style to those in the two Baptisteries of Ravenna, and do not exhibit the specifically Byzantine character described above. Even in some of the incrustations in the Church of St. Sophia in Constantinople, which possibly are as old as the time of Justinian, there is still evident a certain classic spirit of design,—the last attempt to maintain the artistic traditions of the antique. But it is impossible to refer with certainty any of the mosaics in this chief church of Byzantium to the sixth century. The large picture in the tympanon above the middle entrance to the narthex, showing a sovereign in adoration before Christ, was at first supposed, from its similarity to the mosaic in Ravenna inscribed with the name of Justinian, to be the portrait of that ruler, but it has since been proved to represent an emperor of a much later epoch, either Heraclius (A.D. 610–640) or Basilus the Macedonian (A.D. 867–886).



Fig. 52.—St. Agnes. Mosaic in the Apse of the Church of S. Agnese.

The artistic monuments of the Byzantine Empire have not as yet been adequately investigated, and it is scarcely to be hoped that many memorials of the earliest periods of development will there

be discovered,—the terrible uprisings of the Iconoclasts in the eighth century having destroyed nearly all the works of sculpture and painted decorations preceding their age.

It has been asserted that the devastations of the Iconoclasts led to the introduction of a distinct artistic style; this perhaps goes too far, still it is certain that the movement exercised a decided influence upon the later tendencies of Byzantine painting. The most noticeable effect was the change in the subjects represented. The previous inclination to fill the churches with pictures had gone beyond the decoration of the walls, and led to the idolatrous worship of single figures. These miraculous images were not admitted to be the work of man, but were proclaimed to have fallen from heaven, to have been dug from the bowels of the earth, or obtained in some similar mysterious manner. Others were said to be as old as the religion itself, such as the picture of Christ in Edessa, given by the Saviour himself to the messengers of King Abgarus, and the many portraits of the Madonna painted by the Evangelist Luke, etc. Idolatry of this kind excited the ridicule of the unbelieving, the serious disapprobation of the Church, and, finally, the forcible interference of the temporal powers. In the year 726 the Emperor Leo, the Isaurian, pronounced his momentous edict against the worship of images, in consequence of which he and his successors upon the Eastern throne had many and bloody encounters with the fanatical populace, excited by certain monastic sectaries. This destruction of earlier artistic monuments, and interference with the production of the customary sacred pictures, resulted in a change in the traditional manner of representation, and gave to all succeeding Byzantine art a somewhat different character. The objections had not been raised against painting itself, but against the portrayal of Christ, of the Virgin, and of the Saints; thus the attention of artists was diverted from sacred subjects to other themes, and the merely decorative treatment of the ecclesiastical edifices again became of importance.

Upon the whole this was an advantage. It was a return to the usages of the earlier Christians, and to the conceptions entertained by Tertullian, which had been founded upon a fear of the very degeneration combated by the emperors of the eighth century. The

decorative style promoted effects of color and favored the introduction of Oriental motives, which were quite in character with the love of magnificence and display common to the period, and which for the incrustated treatment of surfaces were far superior to those of the Occident. The representation of profane instead of hieratic subjects opened a wide field for the exercise of new ideas, and this class of work found extensive application in the rapidly increasing palaces. The adversaries of the Iconoclasts made many complaints that the sacred edifices were disfigured by the new style of painting, asserting, for instance, that the plant forms and birds, which took the place of the Christian symbols and devotional images in a Church of the Virgin in one of the quarters of Constantinople, gave the building the appearance of "a fruit-garden and bird-cage." But this taunt should rather be ascribed to the prejudices of party feeling than taken as a proof of any real unsightliness. If the decorative figures which superseded the pictures of Christ and the Virgin had not in themselves been pleasing they would hardly have continued to be introduced into the churches after the active interference of the Iconoclasts had been brought to an end by the decisions of the Council of Nicea, in the year 787. The works of the Emperor Theophilus (A.D. 829-842) may serve as an illustration of this retention of profane subjects in a later age.

One branch of the art, the painting of miniatures, was greatly advanced by the action of the Iconoclasts. Illuminated manuscripts had been known from the earliest times and were especially common in Egypt; but in the classic period they were comparatively rare, being employed only for didactic works, such as the writings of physicians, mathematicians, astronomers, and architects. The libraries of the Diadochi do not appear to have contained many works of this kind, and M. Varro's "*Hebdomades vel De Imaginibus*" was certainly an exception. The word miniature itself is of great antiquity, its derivation pointing to a time when a simple pen drawing or writing was touched up with red lead (minium). But a systematic employment of illumination as a branch of art did not obtain until Christian times.

We are acquainted with no miniatures older than the epoch of Constantine. The illustrations of the *Iliad* in the Ambrosiana in

Milan, and those of the Vatican Virgil, do not antedate the fifth century; while those in the manuscript of Terence in the Vatican, and in that of Nicander in the National Library of Paris, although imitated from classic, or at all events pre-Constantine models, are themselves the work of a still later period. There are few examples of the illumination of other than religious writings, the most perfect



Fig. 53.—Miniature from the Codex of Dioscorides, now in the Imperial Library of Vienna.

and most classic of these being the Codex of Dioscorides, now in the Imperial Library of Vienna, which was executed about the year 500 for the Princess Juliana Anicia, daughter of Placidia and Olybrius. Throughout this work, and especially in the dedicatory illustration (*Fig. 53*), there is evident an almost antique composition and drawing, combined with a careful and well-studied execution which

contrasts most favorably with the hasty and incorrect character of other representations of that age. Although these miniatures must be attributed to an artist of the Eastern Empire, they are but little disfigured by the defects of the Byzantine style. The manuscript contains a series of scientific illustrations—drawings of plants, snakes, beetles, and birds,—resembling in treatment those of the didactic works of the Greeks and Romans.

The Christian codices of the fifth, sixth, and seventh centuries, although magnificently written in golden letters upon purple parchment, are illustrated with miniatures of an extremely coarse and incorrect style. This is the case with the fragment of a Genesis in



Fig. 54.—Jacob and his Sons. From Genesis, now in the Imperial Library of Vienna.

the Greek language, now in the Imperial Library of Vienna, in which the scenes are depicted with a certain dramatic life and intensity, but are marred by careless execution and neglect of all the laws of composition: the designer contenting himself with representing his subject in the most crude and prosaic form by which his idea could be conveyed (*Fig. 54*). In all these miniatures but little distinction can be made between the work of Greek and of Roman schools, the art of illumination differing in this respect from that of monumental painting. The leaves of a Latin Bible, dating to the sixth century, now in the Royal Library of Berlin, are decidedly superior in design and execution; but this may in some measure be

explained by the greater individual ability of the artist. This is also the case with a Book of Joshua, of the same age, in the Library of the Vatican, in which the close imitation of an earlier original and the excellence of the work are due rather to an especially devoted and careful copyist than to any direct influence of the Occidental art of that period. In general the illuminations of the Western Empire were vastly inferior to the two specimens just mentioned; for instance, the Latin Bible from the Cloister of Montamiata, in the Laurentiana of Florence, is far more rude and inartistic, although of about the same date. It is natural that the miniatures should be the more naive and unskilful the more remote the district in which they originated; indeed it is surprising that, even in such provincial works, traces of classic principles of design are still recognizable. These characteristics appear in a Syrian Gospel, in the Laurentiana of Florence, written in the year 586, by a priest named Rabula, at Zagba, in Mesopotamia, which is remarkable for a picture of the Crucifixion, one of the earliest known representations of this subject (*Fig. 55*).

The action of the Iconoclasts was as destructive to the miniatures and illuminated manuscripts of the preceding ages of the Eastern Empire as it was to its monumental paintings. Not only single copies, but entire collections of illustrated books were destroyed, the Library of Constantinople being burned in the year 730. But the restrictions placed upon painting by the Council of A.D. 787 were not extended to miniatures and illuminations, and the greater freedom permitted in the choice of subjects was favorable to the development of these minor branches of art. The Byzantine Court, especially during the sway of the Macedonian dynasty, did much to promote scientific culture, whereby the production of illustrated manuscripts was increased. Still, it is not possible to recognize any important advance in illuminations during the last half of the ninth and the first half of the tenth centuries, notwithstanding the fact that several important examples of the art date to this period. Among these may be mentioned the Codex of Gregory of Nazianzos, now in the National Library of Paris, written between the years 867 and 886, and adorned with miniatures representing a great variety of subjects; also the Topogra-

phy of Cosmos, in the Vatican, a work directly imitated from older models, and displaying an antique perfection of form very remarkable in this age. And, finally, a Psalter of the beginning of the



Fig. 55.—Miniature from the Syrian Gospel of Zagba, now in the Laurentiana in Florence.

tenth century, and a Gospel of not much later date, both in the National Library of Paris, which are distinguished by a free treatment, combined with antique conceptions and methods of design.

Compared with these earlier works, a great decline of the art is

evident in manuscripts dating to the end of the tenth century, even in those executed by order of the emperors. In the before-mentioned Psalter the design of the illustrations has an almost antique beauty, very similar to the wall-paintings of Pompeii; but before the termination of the eleventh century the figures represented are little better than puppets.



Fig. 56.—The Emperor Manuel Palæologus, with the Imperial Prince and Princess. Miniature from a Byzantine Codex now in the Louvre.

All attempt to convey an idea of the proportions and forms of the human body is given up, the images are ranged side by side without mutual relations, and, as had been the case two thousand years before in Assyria, all the characteristics of drapery were ignored in the treatment of the robes: the sack-like surfaces being filled in with flat patterns of damask and embroidery. The composition is entirely wanting in the higher qualities of artistic conception; the forms are stiff and mechanical, and the only tolerable features of the work are to be found in its mechanical execution,—the choice and employment of colors being good, and the details

being rendered with much neatness and accuracy (*Fig. 56*).

A similar decadence is also evident in monumental painting, and especially in mosaic work, which soon lost the impetus given to it by the ascension to the throne of Basilus I. the Macedonian, in the year 867. Few of the specimens now preserved can be accurately dated; but historical accounts indicate an extensive production,

and, in some measure, an original style to have been maintained towards the close of the ninth century. This was particularly the case with the representation of profane subjects, the walls of the palaces being covered with historical scenes alternating with floral decorations. The Church itself interfered with the further development of religious art: the second Council of Nicea issuing the decree that the design of sacred subjects should not be left to the invention of the artist, who was required to imitate certain fixed models (*probata legislatio*), and strictly to follow the ecclesiastical traditions. This put an end to all original creation, and restricted sacred painting to a schematic repetition of given recipes, reducing religious art to a mere trade. The use of books of models, and practical apprenticeship, took the place of talent and individuality, all artistic independence being not only unnecessary but absolutely forbidden. The works of Dionysios of Fourni-Agrapha and of Kyrillos of Chios, dating to the twelfth and thirteenth centuries, known as the models of Mount Athos, served as the standard for five hundred years, and gave not only the necessary technical instruction in painting, but also the tenets of composition and types of all the canonical ideas,—to deviate from which was heresy.

It would be wrong, however, to characterize this action of the Church as the sole, or even as the chief factor in the debasement of Byzantine art. The degeneration was intimately connected with the continual decline of all Byzantine culture, which, after a superficial contact with the civilization of the farther East, was incapable of assimilating new and vital elements. The Eastern Empire could not be regenerated. The last traces of antique art were lost in soulless imitation of imitations; artistic work became from age to age more mechanical and more unreal, losing all appreciation and even pretence of beauty, which quality, in as far as the human body was concerned, was held by the ascetic tenets of the Christian Church not only in disesteem but in positive condemnation. The love of magnificent and careful execution, and of harmonious and decorative effects, was the last of good attributes to retain its hold, appearing, even to-day, in the work of those people living to the north and east of the Black Sea whose art has developed upon the Byzantine basis.

The ecclesiastical canonization and determination of the types admitted to be orthodox, and especially the maintenance of a didactic and moral character, so influential among races in many respects little better than half civilized, worked together to extend the exercise of the art of painting, which, during the troublous times of the Iconoclasts, had been almost entirely restricted to miniatures. Thus it came to pass that, in the lands subject to the Greek Church,



Fig. 57.—Byzantine Enamel from the Binding of a Codex now in the Library of S. Marco, Venice.

no surface of a wall or vault, indeed scarcely a pier or column, was without pictorial decoration, no hovel was without its ikonostasis, the breast of no peasant without its painted amulet. The workman-like training resulting from this excessive production had a direct effect upon other branches of artistic industry. Much attention was paid to textile art, liturgic and courtly garments as well as robes of honor being embroidered with designs similar in motive to those of the Orient. Examples of these are the dress of the Empress Theodora upon the mosaic of S. Vitale (*Fig. 51*), and the imperial dalmatica, which is said to have been used at the coronation of Charlemagne in Rome, but which is more probably a Greek work of the eleventh century. Cloisonné enamel was greatly in favor because of its durability and brilliant effect. This manner of treatment was not introduced until considerably later than the time of Justinian, when it was employed for the decoration of ecclesiastical metal work, such as crucifixes, reliquaries, the covers of sacred books,

chalices, etc., and also for objects of princely luxury. In point of execution, enamels of this kind were related both to the work of goldsmiths in relief and to miniature painting (*Fig. 57*). Threads of gold filigree were soldered upon plates of gold or gilt, these forming the visible borders of the local colors, which were cast as a flux into the spaces between them. The effect thus produced is that of a miniature mosaic or incrustation. The largest and most

important specimen of cloisonné enamel is the *Pala d'oro*, on the high altar of the Church of St. Mark in Venice. This work, representing a great number of figures, is assumed, with much probability to have been executed in Constantinople, A.D. 976, as an antependium. A similar combination of painting and jewellery appears in the revetment of pictures, especially those of the Virgin, with garments, backgrounds, halos, etc., of beaten metal, or of enamels and precious stones set in gold and silver. This barbarous decoration did not, however, become common until a comparatively late period.

The development of sculpture among the early Christians and Byzantines was analogous to that of painting. The position of the former art was in so far the more favorable as it could not well be executed with the hasty carelessness possible in the frescos, and as it could not become a merely mechanical trade, like mosaic work. But sculpture, from the very beginning of the period now under consideration, was comparatively neglected, and in the course of succeeding centuries was more and more rarely employed for important works. It was far less adapted to the genius of Christianity than was painting. Those fathers of the Church who inveighed against the fine arts objected most of all to sculpture, fearing the danger of paganism to Christian communities rather from the idolatrous adoption of carved images of the ancient gods than from any works of painting, which latter art was in classic times but seldom employed for the representation of sacred subjects. Moreover, the Mosaic law had particularly condemned sculpture, and the prejudices of the Jewish converts naturally exercised a decisive influence upon the attitude of the primitive Church in such matters. Thus from the outset sculpture was almost restricted to profane work, being but rarely extended to tombs, sarcophagi, etc., and to liturgic utensils, in which application the art was degraded to mere decoration. For representations of the Godhead sculpture was deemed entirely unfit.

The employment of sculpture for profane subjects was continued, and even increased, after Constantine had established Christianity as the official religion of the State. The portrait statues of that emperor display the debased style which has been described

in treating of the Triumphal Arch of Constantine in Rome.* Still it is evident that the traditions of good workmanship inherited from classic times were longer retained in sculpture than in painting, and particularly in mosaic work. The conventional attitudes and gestures which had been established by the typical portrait statues of the imperial age of Rome did much to maintain this fixity of style, as they took in great measure the place of artistic invention and direct study of nature, which was entirely lacking in these latter centuries. On the other hand, the exhibition of statues of this kind in public places tended greatly to increase the production. At the time of Ammianus Marcellinus the upper classes took extreme satisfaction in having themselves immortalized by images of gilded bronze, and it was the summit of ambition to be honored by an emperor or by a municipality with such a portrait statue. The excavations in the Forum Romanum and in the Forum of Trajan in Rome have brought to light a great number of pedestals, the inscriptions upon which refer to celebrated men of this late period.

The portrait statues of the emperors were especially numerous among these works. The most notable specimen preserved until the present day, and at the same time one of the largest of ancient sculptures known, is the bronze statue of Theodosius (?) in Barletta. A great number of similar images, known from accounts of contemporary writers, have been destroyed for the value of their metal. Some of the most important among these were elevated upon monumental columns, like those of Trajan, Antoninus Pius, and Marcus Aurelius in Rome; this variety became particularly common in Byzantium after the erection of a column of porphyry eighty feet high by the Emperor Constantine. The silver portrait statues of Arcadius and Honorius were followed, in the year 543, by the equestrian statue of Justinian, near the Church of St. Sophia, in Constantinople, which important work was unfortunately melted down in the sixteenth century, with the bronze column upon which it stood. It is fully described by Byzantine authors, who speak of it as the work of a certain Eustathius,—the last Greek sculptor whose

* "History of Ancient Art," by Dr. Franz von Reber. Am. Ed. p. 463.

name is known to history. The column, reveted with bronze, was one hundred and five feet high. Upon the projecting abacus of its capital stood the colossal horse, which, together with the imperial rider, was about 6 m. high. From the accounts given the figures appear to have resembled in design the Capitoline equestrian statue of Marcus Aurelius. This combination of an equestrian statue with a column is contrary to æsthetic principles, and the same objection may be urged with equal force against the portrait statues of women elevated upon tall supports, such, for instance, as that of the Empress Theodora, wife of Justinian. The custom of erecting imperial images of this kind continued for two centuries after the age of Justinian, the later works being also known by descriptions and, in rare instances,—such as the statue of Phokas, dating to the year 608,—by fragmentary remains. The imperial portraits last mentioned in literature are those of Constantine VI., who died A.D. 787.

In works of sculpture such as these Christian art had no part: the religious character was recognizable only by the subject represented, not in any way by the artistic treatment. The images of Christ, of St. Peter, and of St. Hippolytus, whether known by descriptions or by the statues themselves, were neither iconic nor indeed in any way peculiarly Christian, but belonged to general classes universal in antiquity, namely, when standing, to the ideal statues of philosophers and poets, and when sitting, to those of rhetoricians. There is no good reason to doubt the existence of that image of Christ which, as Eusebius of Cæsarea tells us, was dedicated at Paneas, or at Cæsarea Philippi, in Palestine, by the woman who was healed of an issue of blood, which statue is said to have been thrown down by the Emperor Julian the apostate, and carried off by the Christians to a church. But the portrait-like resemblance of such a figure is more than questionable; it could at best have been made only according to a verbal description; such a work had at first no devotional significance, and should be classed with the honorary statues of celebrated men. The same was the case with the statue or bust of Christ which, according to Lampridius, the Emperor Alexander Severus (A.D. 222–235) placed in his Lararium, next to the figures of Apollonius of Tyana, Orpheus, and Abraham; and also with the bronze statue of the

Saviour which the Emperor Constantine erected in the Chalke at Byzantium. The nature of the place in which the last work was exhibited leaves no doubt that it was entirely destitute of any ecclesiastical character. The negative result of the investigations made

in this matter by the sister of Constantine, may be taken as a further proof that no iconic representations of Christ were then in existence, although the traditional type,—of which the oldest known example is the mosaic above the Triumphal Arch of the Church of S. Paolo fuori le mura,—may possibly have been founded upon the traditions of eye-witnesses.

In this respect little importance can be attached to the superstitious tales concerning the miraculous image of Christ in Edessa, and none whatever to the works attributed to the skill of St. Luke as a portrait-painter, or to the legend of the impression of the face of the Saviour upon the handkerchief of St. Veronica, which is proved to have originated in the Occident as late as the fourteenth century. In fact the opinion was unsettled during the ear-



Fig. 58.—Statue of the Good Shepherd, in the Museum of the Lateran.

liest ages of the Church whether the appearance of Christ had been ugly or beautiful: the tradition of the second and third centuries being inclined to the former, while that of the fourth century favored the latter assumption.* The learned St. Augustine

* The tradition of the uncomeliness of Christ (Justin. Dial. cum Tryph., 85, 88, 100)

says distinctly that it was not at all known (*penitus ignoramus*) how Christ looked. For these reasons it was found desirable to



Fig. 59.—Statue of St. Peter in the Church of S. Pietro, Rome.

substitute symbols in place of iconic representations of the Saviour. One of the most popular of these was the figure of the

sprang from a desire to see realized in him a trait of the Messianic prophecy (Isa. liii. 2, etc.). It does not appear before the attempts to demonstrate this identification, and, after the legend was firmly established, was naturally relinquished as distasteful to the Church militant.

Good Shepherd (*Fig. 58*), which frequently appears in the catacombs, and continued in vogue until the age of Constantine.

The physical characteristics of some of the saints, especially of those who lived in Rome, must have been better known, and representations of them may have approached more nearly to truth of portraiture. There exist, however, only two sculptures of saints which can be ascribed to an early period, namely, the marble statue of St. Hippolytus, dating to about the year 235, found in the catacombs of S. Lorenzo and now in the Museum of the Lateran, the upper half of which, with the head, is a modern restoration,—and the bronze statue of St. Peter in his church at Rome, which,



Fig. 60.—Odysseus and the Sirens. Fragment of an Early Christian Relief.

from an inscription formerly upon the base, appears to be a Byzantine work of the fifth century (*Fig. 59*). In attitude and drapery the first of these does not differ materially from the profane works of the third century; but the bronze statue of St. Peter has, at least in a slight degree, the character of a portrait, some resemblance to the individual doubtless having been maintained, through the centuries previous to the execution of this work, by small bronze medallions of the apostles, and by miniatures of a golden bust painted upon a blue ground between two layers of glass.

The sculpture of reliefs was much more common in early Christian times than that of statues. Decorations of this kind upon sarcophagi followed, at least in regard to subject, the development

of painting as it appears in the catacombs, while they are distinctly superior in artistic respects. In the reliefs, also, classical reminiscences are not wanting: scenes from the athletic games of the ancient circus, as upon the sarcophagus of Leucis in Terni, or Odysseus and the Sirens (*Fig. 60*), figuring as allegories of temptation. Among the few of these works which can be dated the most important in many ways are the sarcophagi of Helena and Constantia, of the time of Constantine, which have been removed from the mortuary chapels bearing their names to the Museum of the Vatican. The sculptures in high-relief upon these gigantic coffers of porphyry have but few Christian characteristics, the subjects represented upon that of Helena being warlike scenes, and upon that of Constantia genii gathering grapes among a foliage of acanthus leaves.



Fig. 61.—Relief carved upon a Sarcophagus in the Museum of the Lateran.

Themes more peculiarly Christian are introduced upon two sarcophagi of about the same period: that of Junius Bassus († 359), in the Crypt of the Vatican, and that of Anicius Probus († 395), in the Pietà Chapel of St. Peter's. The subjects represented upon the first of these are chiefly chosen from the New Testament, while upon the second Christ and the Apostles take the place of Apollo Musagetes and the Muses, previously so common. A great number of marble sarcophagi, ornamented with symbolic representations and scenes from the Old Testament, which have now been collected in the Museum of the Lateran, appear to be of a somewhat earlier date; notable among them is the coffer of Junia Julia (*Fig. 61*). The unskilled and careless execution of the sculptures upon it betrays the hand of an artisan rather than an artist, but the themes illustrated are so closely related to those of the paintings in the

catacombs, both as regards choice of subject and general conception, that the work cannot be ascribed to a later period than the age of Constantine. Similar to it, at least in the treatment of the figures as youthful genii, is the fragment discovered by J. B. de Rossi in Spoleto: a vessel steered by Christ and rowed by the Evangelists, John, Mark, and Luke, all the figures being designated by inscriptions. A sarcophagus in the church of the Franciscans at Spalatro, which cannot be of a much more recent date, is of quite a different style, the passage of the Red Sea by the Israelites and the destruction of Pharaoh and his army being represented in a manner which distinctly shows the influence of the spiral reliefs upon the columns of Trajan and Marcus Aurelius (*Fig. 62*). Some sarcophagi in the Museum of the Lateran, dating from the fourth or, at the latest,



Fig. 62.—The Passage of the Red Sea. Relief upon a Sarcophagus in Spalatro.

from the fifth century, are carved with subjects from both the Old and the New Testaments, the figures being placed together without plan or division, and in a very different arrangement from those upon the sarcophagus of Bassus, where the various scenes are divided and framed in with columns, entablatures, niches, and pediments. Still there is no lack of symmetry and artistic disposition of the figures in the former compositions, and, closely as they are crowded together, their significance is yet perfectly plain. In general the treatment in relief is a further debasement of the imperfect Roman style; although the modelling is quite flat, the bodies are conceived as if they were statues in the round, and are more commonly shown in full face than in profile.

Among the early Christian sarcophagi in the Museum of the Lateran many are entirely plain; others are decorated with simple

ornaments of straight lines,—carved with single figures at the corners,—or with the double breast-pieces of husband and wife upon a circular and ribbed background. Numerous sarcophagi are found in the crypt of St. Peter's and in other churches and collections of Rome. Early Christian coffers of carved marble are also met with in Ravenna, Milan, Naples, Ancona, Spoleto, Arles, Lyons, Marseilles, Aix, Rheims, Saragossa, and in various places of Northern Africa and the Byzantine Empire. Occasionally coffers of lead were used instead of chests of stone, these being usually without reliefs, or occasionally with simple decorations like those upon two specimens in the Museum of Angers, the age of which is uncertain.



Fig. 63.—Coffin of Lead, found at Saida, Phœnicia ; now in Cannes.

Two richly ornamented coffins of lead (*Fig. 63*), discovered by Baron Lyklarna in Saida in Phœnicia, now in Cannes, are hence the more important. In the opinion of G. B. de Rossi these works are to be ascribed rather to the time before Constantine than to a later date. They are particularly remarkable because of the occurrence of the monogram of Christ with the symbolic $\text{IX}\Theta\text{T}\Sigma$, and have upon either side a fine frieze of grapes and vines, chalices and doves, the cast forms of which still preserve reminiscences of the early Phœnician style, determined by beaten metal work. Some parts of the design, especially the figures resembling *Æsculapius*, upon the ends of the coffers, might well have been taken for antique. The em-

ployment of carved sarcophagi was discontinued in the sixth century, after the ornamentation of figures in relief had been displaced by simple symbols, such as those upon the coffers in the Mortuary Chapel of Galla Placidia, dating to the fifth century.

Among the minor branches of art, carvings in ivory retained a place in popular favor for a longer period. The most important specimens of this work were the diptychs, or double writing tablets, ornamented upon the outer side with reliefs, and covered upon the inner surfaces with a thin coating of wax, upon which memoranda were scratched with a stylus. Such tablets were much in vogue among the upper classes during the imperial epoch, as objects of luxury and as New-year's gifts. In the year 384 it was determined by law that the privilege of using these diptychs should be restricted to the consuls, who were permitted to present them to their friends on the occasion of the public games instituted at the time of their accession to office. The consular diptychs thus have the advantage of being accurately dated, this making a consideration of them especially important to the history of the development of sculpture. Their artistic value, however, is usually not great, and is, moreover, much influenced by the locality of their execution and the individual ability of the carver. Specimens dating to the fourth century are rare, the most noteworthy of these being the diptych of Rufus Probianus, ascribed to the year 322, now in the Royal Library of Berlin. Those of the fifth century are far more numerous; among them are a single tablet of Flavius Felix, A.D. 428, in the National Library at Paris; the diptych of Areobindus the elder, A.D. 434, in the Ambrosiana of Milan; that of Flavius Astyrius, A.D. 449, in the Museum of Darmstadt; and lastly, the fine diptych referable to the first half of the fifth century, in the treasury of the cathedral at Monza, which shows upon one side the portrait of Galla Placidia with her son Valentinian III., and upon the other that of Consul Aëtius. In all these works Italian reminiscences of the classic Roman methods of sculpture are still evident. In the diptychs of the sixth century this style is entirely exchanged for that of Byzantium. The diptych of the consul Areobindus the younger, A.D. 506, in the Antiquarium of Zurich, and that of Anastasius, A.D. 515, in the National Library of Paris (*Fig. 64*),—the former

representing a combat with a lion in an amphitheatre, the latter a circus race under the figure of the consul,—both show the stiff and clumsy forms and the heavy proportions which, in combination with the Oriental magnificence of the embroidered garments, are characteristic of Byzantine designs.

Ivory carvings of religious subjects for liturgic purposes were similar in style to these profane works. Chief among them were the diptychs, or tablets, used by the priests in reading lists of names, etc., to the congregation, and also those tables of prayers from which the canonical tablets, still in use in the Catholic Church, appear to have been derived. Carvings of ivory were also used for the covers of books, especially of missals, and were for this purpose mounted in gold and decorated with jewels and enamels. This kind of binding became general when the change was made from a scroll to a book of leaves, the latter having evidently been considered at first as a combination of the manuscript and the diptych. To this category belong the carved panel of ivory in the Cathedral of Salerno, with the story of Ananias and Sapphira, and the four tablets in the British Museum, upon which, among other scenes of the Passion, the Crucifixion is represented. As the style of the latter sculpture does not appear to be later than the

fifth century, it is without doubt the earliest appearance of this subject. Similar works of about the same date are preserved in the cathedrals of Milan and Como, the Church of S. Michele in



Fig. 64.—Diptych of the Consul Anastasius, A.D. 515, in the National Library, Paris.

Murano, the National Library in Paris, and the collections of Brescia and Darmstadt.

In Constantinople the use of these tablets continued general for centuries, and their decorations were but little influenced by the action of the Iconoclasts. The antique elements of design, however, gradually disappeared, and carving in ivory, following the debasement of the miniatures and mosaics, became stiffer, more lifeless, and less artistic, while still maintaining in great measure the original delicacy and exactness of execution. The tablet in the Musée Cluny in Paris, representing the Emperor Otto II. with the Princess Theophano,—without doubt a memento of their marriage in the year 972,—and that with the portraits of the Emperor Romanus IV. and his wife, dating from the year 1068, show the excessively long and lean forms of the body, the heavy brocade draperies, and the general hardness and stiffness characteristic of all Byzantine figures.

Carvings in ivory were also employed from the earliest period for various other utensils, as, for instance, for the pyxis or box in which the Host was kept. The specimen, dating probably to the third century, now in the Museum of Berlin, is one of the earliest and most beautiful, the style of its decorations being almost classic. Upon the cylinder is represented the Sacrifice of Isaac, and Christ teaching among the Apostles. A similar vessel, but dating to the sixth century, is now in the Musée Cluny in Paris. The subjects upon this latter example are the well-known miracles of Christ in healing the sick and raising the dead. In artistic treatment it is decidedly inferior to the earlier work. The largest ivory carving of the early Christian epoch is the cathedra of the Bishop Maximian, which was executed between the years 546 and 552, and is now preserved in the sacristy of the Cathedral of Ravenna. It displays numerous representations of single figures and groups, surrounded by a framework of foliage and various animals. The different parts of the work are of very unequal value, the decorations being decidedly better than the figures.

Mention must also be made of the work in precious metals which at this period flourished throughout the East, and particularly in Constantinople. Enamelling was most common, and those

few branches of goldsmiths' work which are to be considered under the head of sculpture are but rarely of artistic importance. The die-cutting of Byzantium had at all times been inferior to that of Rome. Soon after the age of Constantine even gold coins show flat heads in full face, with but little individuality; and after Justinian they were debased to most barbarous types. The artistic



Fig. 65.—The Two Marys at the Sepulchre. Relief of Gold in the Louvre.

treatment of the large empaistic works in gold and silver did not even equal the intrinsic value of the metals themselves. A relief of gold, now in the Louvre, representing the two Marys before the angel who guards the sepulchre, may serve as an example (*Fig. 65*). The character of the Greek inscription makes it impossible to consider this work as antedating the tenth century, hence it is not

surprising that its style shows no understanding of the principles of modelling in relief, but is entirely dependent upon the design of late Byzantine paintings and miniatures. The golden cover of the binding of the Gospel of Charles the Bald, now in the Library of Munich, which is stated in an inscription to have been attached to the codex in the year 975, by the Abbot Romuald of St. Emmeram in Ratisbon, is known to be of Italian or German workmanship, but it is entirely Byzantine in character, and consequently an exact imitation of Eastern models. The same is the case with the design of the most magnificent example of this kind, the Antependium of the high altar of S. Ambrogio in Milan,—a worthy companion-piece to the *Pala d' oro* in Venice. The Master Wolvinus, who is mentioned in an inscription upon the Antependium, can hardly have been a Byzantine. In view of the lack of effect in all these works it appears natural that a decided preference should have been shown for enamels,—the brilliant and richly colored effects of which were so well suited to the Byzantine taste. The desire for magnificence in the decorations of palaces and altars was readily satisfied with goldsmiths' work of small artistic value, with ornaments of filigree, and with a gaudy incrustation of jewels.

The true materials of monumental sculpture,—marble and bronze,—were but rarely employed after the time of the Iconoclasts. Sculpture in the full round was interdicted, equally with painting, by the council of A. D. 754, by which time other circumstances had already led to an almost entire neglect of this branch. Even after the council of A. D. 787 had again countenanced painting, sculpture still remained under the ban, as a peculiarly heathenish art. Excepting merely decorative works, no Byzantine marble carvings are met with after the eighth century. It is, however, certain that the discontinuance of this art was not alone due to the action of the Iconoclasts; for in the Occident, which was but little influenced by this movement, the decline of sculpture is hardly less observable. The six figures, in stucco relief and larger than life, of Sts. Chrysogonus and Zoiles, Anastasia, Agape, Chionia and Irene, which during the eighth century were placed as votive offerings in a chapel of the cloister of the Benedictines at Cividale, in Friuli, are isolated and exceptional works, appearing in style as direct translations

of Byzantine paintings, and wholly without understanding of the peculiar methods of sculpture. These figures display in a striking manner the total loss of the antique traditions of monumental sculpture at this period.

Casting in bronze was entirely discontinued, and even the casting of smaller utensils decorated in relief, which had been frequent in the early Christian epoch, was no longer practised. As sculpture in precious metals had been superseded by enamel, so also was empaistic work exchanged for a surface ornament of damaskeen and niello. The bronze doors executed in Italy during the eleventh century are examples of this new style of treating metals; particularly worthy of mention are those of Amalfi, Monte Casino, S. Paolo fuori le mura at Rome, S. Angelo on Monte Gargano, Atrani, Salerno, and of S. Marco at Venice. Similar to them are the doors of some Russian churches, notably that of the Cloister at Susdal and that of the Church of the Assumption in Moscow. In these works modelling in relief is exceptional, the decoration being effected by engraved lines filled with silver wire or with a colored flux, while the faces and naked extremities were lightly engraved upon thin plates of silver. As might be expected from the date of their execution, the design of the figures is monotonous and stiff, meagre and attenuated beyond human semblance. It may with reason be assumed that we have here to deal with technical methods derived from the East, and it is worthy of note that very similar damaskeened and engraved metal work is still common in Mohammedan lands.

In reviewing the achievements of early Christian and Byzantine painting and sculpture in their entirety we are forced to acknowledge their importance, notwithstanding many and great defects. The withering and petrifying degeneration of classic art was already fully declared in the time of Constantine, and must be considered as an hereditary ailment of Byzantine Christianity. The traditional types of antique art were necessarily retained, but could not be rejuvenated by succeeding generations. The empires of the East and West, which were for centuries the only representatives of European civilization, were connected in too many ways with the culture of classic times and of Eastern Asiatic nations to be able to

introduce new forms in the place of those which had become debased by continual repetition. Thus the fate of Byzantine art, as Schnaase has suggested, may be compared to that of Tithonos, beloved by Eos, to whom the gods, at her request, had granted immortality, but not eternal youth, and who was thus condemned to drag out a long existence of the most wretched decrepitude. Still all was not utterly bad; even in the later ages Byzantine painting retained some important merits. A certain dignity and magnificence was maintained, and even increased, being recognizable in all the mosaics of the Eastern Empire. And the harmonious unity called style was also preserved, in ideal as well as in material respects,—that is to say, both in the agreement of subject and manner of representation, and in the correct relation of the material and the form. The methods of technical execution were almost always intelligent and careful, and from the combination of antique traditions and Oriental influences there resulted a peculiar individuality well adapted to the requirements of the age and culture. This unity of style was maintained in details as well as in general composition, and bears a striking testimony to the rational and moderate side of the Byzantine character.

The Byzantines not only had all that artistic competence which it is possible to acquire by special training,—namely, that relating to the traditional treatment of subjects and the typical forms, as well as to all the technical branches,—but they transmitted these acquirements to their most distant dependencies. As has been shown in the preceding chapter, the influence of Byzantium in architectural respects was extensive; and Byzantine painting was so widely known that there was scarcely a Christian country previous to the eleventh or twelfth century not directly or indirectly influenced thereby. The present consideration must be limited to those districts most immediately connected with the Byzantine Empire, and especially to Russia, inasmuch as Georgia and Armenia, although offering important developments of Byzantine architecture, were almost entirely without noteworthy works of painting or sculpture.

In Russia there are few memorials of ancient sculpture,—the sarcophagus of the Grand-duke Jaroslaw, in Kief, is quite excep-

tional, and the bronze doors at Novgorod, Susdal, and Moscow are either Byzantine works, as is evident from their popular designation of Korssun (*i. e.*, Chersonese) gates, or they are of German origin, as is the case with those dating to the twelfth century in Novgorod, which were probably brought from Magdeburg.

In Russian painting, on the other hand, the production was excessive, but without the interest which attaches to Russian architecture. The Byzantine types were reproduced with servile exactness, being regarded almost as a branch of the liturgy; they had developed as an integral part of the ecclesiastical ordinances, and, like the dogmas, had become immutable. In short, the canons of pictorial art in the Eastern Church were as unchangeable as the texts of the sacred books. Thus it came about that religious miniatures, as well as the monumental paintings, which appeared upon all parts of the interior of the church, and especially upon the wall behind the altar (*Ikonostasis*), have maintained even to-day the original characteristics in such a degree that the most recent religious pictures are at times to be distinguished from those of the thirteenth century only by experts, while the Russian or Byzantine origin is often only to be determined by the language of the inscriptions. As in the Greek Empire, the types are senile and ugly, lean and attenuated; the flesh-tints are brownish and dark; the magnificent garments are drawn with straight folds, and are frequently represented by sheets of beaten gold and silver mounted with jewels. The Russian painters' book *Podlinnik* is closely related to that of Mount Athos, from which it differs only in unimportant details. Its models for single images and for large compositions are the same as those determined by the Byzantine Church. The fame of Master Andreas Rubleff, who flourished towards the end of the fourteenth century, appears to have depended mainly upon his artistic orthodoxy. When Ivan III., at the end of the fifteenth century, brought painters, as well as architects, from Italy, their employment actually occasioned public disturbances; and when a new painters' book, called *Stoglaff*, had been instituted upon the basis of Rubleff's art, an edict, promulgated by the Grand-duke in the year 1551, gave to it the force of an absolute law, so that even rulers so favorably inclined to Occidental civilization as Peter the

Great could not venture the slightest interference with its statutes. By such means was the Byzantine-Korssun style preserved from the influence of the Italian Renaissance; and it is thus that in Russia the painting of the Eastern Empire has dragged on its existence until the present day. An exception is, however, to be made in favor of certain academic circles which, since the beginning of the nineteenth century, have endeavored to follow the development of modern European art. It remains to be seen whether these attempts will succeed in effecting a compromise which shall combine in religious painting the requirements of modern civilization with the Byzantine elements, while not deviating from the narrow rules laid down by the ordinances of the Greek Church.



Fig. 66.—Façade of the Palace of Khosru at Ctesiphon.

ASIA.

THE PERSIANS UNDER THE SASSANIDÆ. THE INDIAN AND EASTERN ASIATIC RACES.

THE great mission of Mohammed was contemporary with the highest development of the Byzantines. At that time his Arabian tribe was perhaps the most uncivilized of all those races of Asia and the European and African shores of the Mediterranean which were destined so soon to embrace the faith of Islam. Some of these races still maintained a culture as old as the history of the world. Thus Egypt could trace back its art for more than three thousand years,—being then in the fourth phase of its development: the empire of the Pharaohs had been followed by the Hellenistic Ptolemies, and, after Cæsar, by a Roman civilization; before this had been thoroughly adopted it was in its turn replaced by early Christian elements from both Italian and Byzantine sources. Similar changes, after even shorter lapses of time, had affected the

Syrian coast. Phœnician art was even less able to hold its own against the Hellenistic tendencies of the Seleucidæ than had been the Egyptian; and Palestine, the native country of Christianity, was naturally more readily adapted to receive Christian culture than was the valley of the Nile. The case was the same in Asia Minor, where native art had at a very early period been exchanged for that of the Greeks. After the incorporation of the kingdom of Pergamon into the Roman empire, the land soon adopted the early Christian conceptions and types, and finally became quite Byzantine through the influence of the neighboring capital of Constantine upon the Bosphoros. Some tracts of Asia Minor even attained an independent importance in these last phases of development, as we have seen to be the case with Armenia.

The history of art in these countries during the ages before their adoption of Mohammedanism has been related in the "History of Ancient Art" and in the preceding chapters of the present book; but the culture of the interior of Asia and the south-eastern parts of the great continent must be considered anew in this connection.

The civilization of Persia, which, under Cyrus, had taken the place of primitive Mesopotamian traditions, lost its position more readily than did that of the far more ancient Egyptian empire. Notwithstanding the enormous extent of Persia,—from the Indus to the boundaries of Europe,—the realm not only lacked the stability of age, but time and means for its consolidation. The three centuries of Hellenism under the Seleucidæ which followed the overthrow of the Persian empire by Alexander, and the two hundred years of Parthian misrule and destruction had almost entirely obliterated the ancient traditions, when Ardashir,—claiming descent from the ancient Achæmenidæ,—founded in the year 226 the new Persian empire and that new dynasty called, after the name of Ardashir's father (Sassan), the Sassanidæ. Although the artistic conceptions of the Sassanians were similar in many ways to those of the Persians, from whom they claimed to be directly descended, they were too heavily handicapped with Græco-Roman and barbarian, and in later times even with Byzantine, influences to be able to create an original monumental art.

We are acquainted with no important architectural remains and

with but few memorials of sculpture dating from the period of the foundation of the empire of the Sassanidæ.* The erection of temples or other buildings intended for worship was as little to be expected from the later adherents to the doctrines of Zoroaster as from the ancient Persians, and no vestiges of palatial architecture are referable to the century which witnessed the renewed life of this remarkable people. If the ruin of the palace of Diarbekr, upon the upper Tigris, is indeed to be ascribed to Shahpur II. (A.D. 310-380), its ornamentation of engaged columns of the Corinthian order is a direct indication of Greek or Roman influence. Such classic elements are hardly recognizable in the remains of the Palace of Firuz-Abad, which was unquestionably erected by the king Firuz (Pheroses, A.D. 460-488), and which is consequently the oldest monument of the Sassanidæ the age of which is assured. The palace was of very considerable dimensions, covering an oblong 103 m. long and 55 m. broad. The grand entrance, upon one of the narrow sides, led through two transverse corridors to three domed halls, behind which the living-rooms were grouped around a square court. This interior portion is similar in plan to the palaces of the ancient Persians, the influence of which is otherwise evident only in the cornices of the doors and niches. Classic pilasters and architraves also appear, but by far the most important of the reminiscences point to a retention of early Mesopotamian traditions. These are noticeable in the exceedingly heavy walls of the front, which are over four metres in thickness,—in the engaged columns and pilasters without bases and without capitals,—and in the entire lack of all isolated columns. On the other hand, a system of vaulting is universally employed, to the exclusion of horizontal ceilings: the doors, windows, and the narrow passages within the thickness of the walls being round-arched, while the barrel-vaults and cupolas are of a parabolic outline. Both these systems of stone ceiling had appeared, at least in their beginnings, in the primitive architecture of Assyria. The peculiar custom of giving to the arches and vaults a larger diameter than was required by the opening between the vaults beneath them was probably due to a

* E. Flandin et P. Coste, *Voyage en Perse*. 4 vols. Paris, s. a.

desire to increase the stability of these supports. The most important achievement is the fine solution of the problem of covering a hall of square plan with a dome: the place of the Byzantine pendentives being taken by a number of squinches, or arches of stepped projection, somewhat similar in construction to those of San Lorenzo in Milan. (Compare *Fig. 67*.)

The oblong Palace of Sarbistan is of much the same disposition, but of smaller dimensions, being only 41 m. long by 36 m. broad.

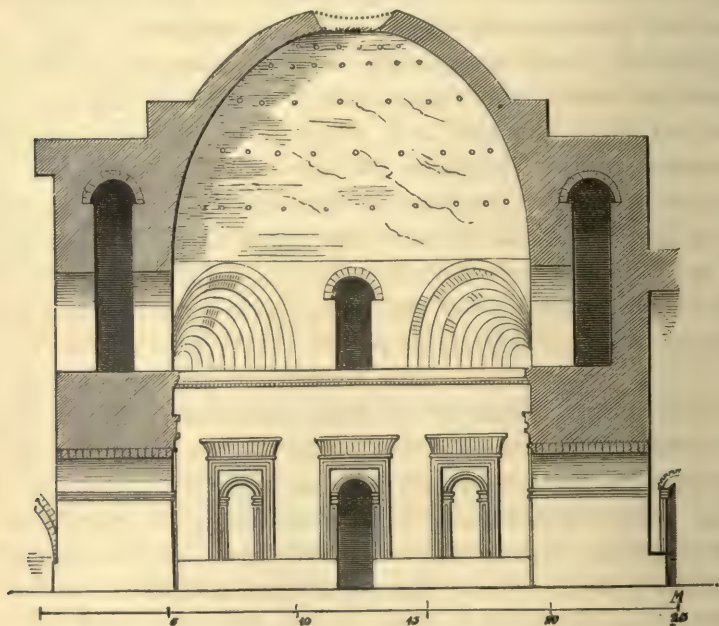


Fig. 67.—Section of one of the Domed Halls of Firuz-Abad.

There is here but one domed hall before the square court, and this without the ornamentation of the ancient Persian door and window cornices. On the other hand, the oblong spaces are provided with columns, which are placed close to the wall and connected longitudinally and latitudinally by arches. The shafts are scarcely three metres in height, and, like the somewhat lighter engaged columns of the façade (*Fig. 68*), are without bases and capitals. It is remarkable that, in contrast to those of Firuz-Abad, the arches and even

the cupola-vaults of Sarbistan are smaller in diameter than the distance between their supports.

The most magnificent of the ruined palaces is that of Ctesiphon, probably erected by the Solomon of the Sassanidæ and contemporary of Justinian, the great Khosru I., Nushirvan (A. D. 531-579), who founded his new capital on the Tigris opposite to the ancient city of Seleucia, which had remained in ruins since the third century after Christ. The entrance façade of this palace now alone remains, and is known as Takht-i-Chosru (Throne of Khosru). Its enormous door is over twenty-five metres high. The façade (*Fig. 66*) is profusely ornamented with engaged columns and pilasters in

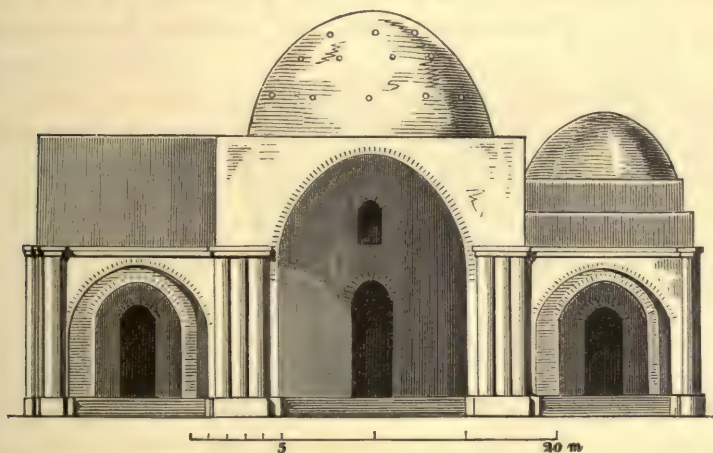


Fig. 68.—Façade of the Palace of Sarbistan.

relief arranged in three stories, not without variety and an understanding of the constructive and artistic advantages obtained by proportions diminishing as they ascend, but still made most unpleasant to the eye by a want of correspondence in the vertical arrangement of the shafts. It is not certain whether the plain trapeze-shaped capitals of the engaged columns, which are very similar to those of Byzantine architecture, were imitated from Eastern models; but the ornamentations of other capitals of this period, found at Ispahan, Bi-situn, etc. (*Fig. 69*), seem to lend support to the assumption. The arches and vaults of Ctesiphon are,

in the majority of cases, larger in diameter than the distance between their supports, but at times, also, they are smaller,—the building thus combining, evidently without definite reasons based upon constructive advantages, the before-mentioned peculiarities of Firuz-Abad and of Sarbistan.

Of the two varieties in the form of the arch, that introducing a diameter larger than the distance between the supports is by far the most important, because destined, in later times, to be developed into a new architectural form. The upper corners of the piers, or supporting-walls, at first formed a useless angle, which, not having received an independent significance by an impost cornice, was soon chamfered off so as to form a continuation of the line of the curve. There thus resulted the so-called horseshoe arch,

—that is to say, that form in which the semicircle is continued along the stilt at its base by two small segments. The horseshoe shape appears distinctly pronounced in a monument at Takht-i-Gero,



Fig. 69.—Sassanian Capital, from Ispahan.

on Mount Zagros, the mouldings of which display the characteristics of Seleucid and Roman architecture, and which consequently cannot be ascribed to a more recent date than the fifth century after Christ (*Fig. 70*). This shape of the arch, however, was not definitely determined, or, at all events, did not become of importance as an indication of style, until the Arabs had imitated it, without doubt from Sassanian prototypes, and employed it in preference to all other forms.

The sculpture of the Sassanians is more interesting, though perhaps not more artistic, than their architecture. The memorials of the former art are numerous, for traditions inherited from the Achæmenidæ inclined the later kings to celebrate their deeds by rock-cut reliefs. The history of ancient Persia and Xenophon's *Cyropædia* clearly show the powerful and warlike race to have pos-

sessed certain heroic and knightly traits which remind us of the chivalry of the Middle Ages. Among the Sassanians these characteristics seem to have been increased by the long subjugation of their country during the Alexandrian epoch, and by their continual combats with the hostile Parthians and with the Roman legions. We find institutions similar in nature to those of European chivalry in the martial training of the mounted nobility, in the order of battle, in the armor of richly ornamented helmets, coats of mail, lances, large swords and shields, and in the magnificent caparisons of the horses. The equestrian figure of King Khosru II., Parviz, entirely clad in a suit of chain-armor, as it appears upon a relief of the rock-cut monument at Takht-i-Bostan, might be introduced without change into the picture of an Occidental tournament.

These fantastic and knightly characteristics are blended, in the first period of Sassanian sculpture, with Roman influences.

This is especially evident in the allegorical figures of victories, and in the representation of the vanquished Romans. A favorite subject of the early Sassanians is the capture of the Roman Emperor Valerian by Shahpur I., in the year 250, this appearing at Shahpur, Darabgerd, and Nakhsh-i-Rustam (*Fig. 71*). It is remarkable that in these representations the artists did not only portray the Romans, known to them by the prisoners of war, with their peculiar facial types, characteristic gestures and costumes, but even adopted for these figures a certain classic style, differing most decidedly from the traditional positions and draperies of the Sassanian king and his retinue. On the other hand, this imitation of



Fig. 70.—Sassanian Monument at Takht-i-Gero.

Western models was in many ways quite as helpless and lacking in intelligence as had been the employment of Greek forms by the ancient Persians.

In other respects the style of Sassanian sculpture was based upon that of the earlier inhabitants of their land, the Assyrians and Persians. This is apparent in the almost exclusive limitation of the subjects to warlike and hunting scenes,—in the ceremonial parades, at times combined with mythical or allegorical figures,—and in the greater ability displayed in dealing with historical conceptions than



Fig. 71.—The Capture of the Emperor Valerian by Shahpur I.

Rock-cut Relief at Nakhsh-i-Rustam.

with individual conditions. From this peculiarity there resulted, in both epochs, a certain dryness, like that of inventories, a monotonous design of the minor figures, and a tendency to crowded compositions. The dependence upon the earlier art is also recognizable in the liking for a fleshy fulness of the bodies, for the luxuriant curled locks of hair and beard, and for rich apparel and jewellery. The lack of understanding in the rendering of the forms of the human body, noticeable in the ancient art of Persia, is even more painfully felt in Sassanian sculpture. The draperies are puffed out

into thick cushions around the shapeless limbs, or flutter in many folds, so as to represent the waving of silken stuffs blown by the wind. This wild play of the wind with locks of hair, with the ends of garments, ribbons, etc., is increased in the same degree as the forms and proportions of the bodies become abnormally voluptuous and heavy. This degeneration is the more pronounced the more Sassanian sculpture deviates from that of the Romans and Byzantines,—turning from the influences of the neighbors upon the West to those upon the East,—especially to India.

The same peculiarities would, without doubt, have appeared in the painting of the Sassanians had memorials of this art been preserved to us. If it is permissible to draw conclusions from later Persian paintings of the Mohammedan epoch, we may assume that this branch of art,—although traditionally popular among the Persians, both in application of pigments and in weaving and embroidery,—must still have stood upon a lower level than sculpture and architecture, by reason of its fantastic and incorrect drawing, irregular composition, and harsh coloring.

Persia was the first country invaded by advancing Mohammedans, and the tracts bordering this land upon the south-east, beyond the Indus, could not long remain uninfluenced by the new faith. India* unquestionably possessed a high degree of culture during the ages which have been considered in the "History of Ancient Art," maintaining, indeed, one of the oldest civilizations of the world; still it has not been deemed advisable to treat of its art in connection with that of classical antiquity. The art of this earliest period is but little known; it appears probable that it did not attain to any notable importance before the Christian period, and it certainly did not reach its full development before the Middle Ages. Moreover, the political history of India, without which a coherent account of Indian art is not possible, is comparatively recent. Before the invention of printing India had produced more books than any

* J. Fergusson: *Tree and Serpent Worship; or, Illustrations of Mythology and Art in India in the First Centuries after Christ.* London, 1868.—The Same: *History of Indian and Eastern Architecture.* London, 1876.—The Same: *The Cave Temples of India.* London, 1880.

other country,—namely, between ten and eleven thousand works,—among them many of greater antiquity than are elsewhere to be found, such as the Vedas and the Manu, dating to the first half of the second millennium before Christ; but not one of all these is, strictly speaking, a historical work. The chronicle of the island of Ceylon after 250 B.C., contained in the Mahawanso, and the lists of kings from Chandragupta down to the extinction of the dynasty of Andhra, *i.e.*, from 325 B.C. until about A.D. 400, given in the Puranas, convey no distinct historical conceptions, and are limited to unimportant provinces. The epigraphical remains of the country have as yet been but little investigated.

The ethnographical relations of the Indian races are by no means clear. It is only certain that the highest position was taken by the Sanskrit-speaking Aryans, a tribe which had emigrated from Central Asia, by the way of the upper Indus, probably before the beginning of the third millennium before Christ,—which had lived long in the Punjab, and had attained to the height of its power about 2000 B.C. As is evident from the much later epic poem Ramayana, which deals with this period of supremacy, this population was peaceable and nomadic. It is not known how it came about that, eight centuries later, in the ages described in the epic Mahabharata, barbarous and warlike hordes appear in place of the Arian shepherds; and we are quite as much in the dark concerning the origin of the Dravidians, a race supposed to have been of Turanian derivation, which had immigrated from beyond the lower Indus,—as well as concerning a third race, the Dasyus, which may possibly have been of Slavonic extraction.

The lyric character of the early Indian epics was as little favorable to the development of the formative arts as were the dreamy and metaphysical speculations of Buddha (Sakya Muni), the great reformer of the East, who was born in 623 B.C. at Ayodhya, the modern Oudh, on the slopes of the Himalayas. The intercourse with Western nations was of more decisive influence upon the arts of India, these relations having been intimate as early as the time of the first kings of the Maurya dynasty, 325–188 B.C., notably during the reign of Chandragupta, the Sandrokkotos of the Greeks. This king even received, at his palace of Palibothra, now Patna, on

the Ganges, Greek ambassadors,—among them Megasthenes, who was sent by King Seleucus of Syria. The Hellenic influence, furthered by the campaigns of Alexander and the continual interchange of embassies between India and the courts of Antiochus, Antigonus, Ptolemy, Philadelphus, and Magas of Cyrene, is distinctly evident in the structures erected by Asoka (272–236 B. C.), the grandson of Sandrokottos.

Asoka was the Constantine of Buddhism,—sending missionaries to Cabul, Cashmere, Thibet, Pegu, and Ceylon, and transforming, within one generation, an obscure sect to one of the most widespread religions of the world. But although he filled all the provinces of India with Buddhist monuments, he was still not able to lay the foundations of a truly national art. Both the religion and the character of the people were without the fundamental elements requisite for such a development. The former was without that healthy and sympathetic appreciation of the outer world which leads to delight in beauty, while the latter was entirely lacking in that sense of definite form, of static logic, and of the æsthetic expression of constructive requirements, upon which the development of a noble architecture is dependent. In like manner the nation had no conception of normal and typical forms in the representation of the living organism, and was thus incapable of achievements in painting and sculpture as well,—the fanciful and impractical symbolism, and the voluptuousness and monstrosity of Indian art putting the discipline of regular training out of the question.

Before the age of Asoka all the architecture of the country was of wood,—the employment of stone appearing to have been restricted to works of engineering, to foundations, the fortifications of cities, quays, canals, and bridges. The primitive forms determined by methods of timbered construction were imitated, and gave the most salient characteristics to Indian architecture, appearing alike in all those varieties of the native style which resulted from the ethnographical differences of the Hindoo races.

This fundamental character is recognizable even in those monuments, the nature of which is in no wise akin to buildings of wood. Chief among these are the funeral piles known (in Sanscrit) as

dhagobas, or stupas, and from the colloquial Pali [*thupa*] as topes, which for the greater part were erected to contain sacred relics of Buddha. At the death of the reformer, in 543 B. C., eight cities contested for the honor of possessing his corpse, and commenced the dismemberment of his body, which has since been continued almost infinitely. Not one of the original monuments now exists, but the topes built by Asoka seem to indicate that the first mausoleums of this kind were similar in form to the tumuli of Lydia and Etruria,—the main difference being that the superstructure above the cylindrical drum is not conical but hemispherical, or of parabolic outline, this round form leading to the popular tradition that the tope was intended to represent the bubble chosen by Buddha as the symbol of transitoriness. The construction of the interior, which, with exception of the small chambers destined to receive the relics, was of solid masonry, does not indeed determine this round form, wherein an imitation of the Indian roofing is perhaps recognizable: the soft and feminine character of the Indians, the full-breastedness, so to speak, of their luxurious ideals, inclining them in general to the adoption of convex curves.

If it be true that Asoka erected eighty-four thousand of these reliquary topes, it is evident that they can have been neither of great size nor of elaborate construction. Without doubt many of those now preserved date to the time of Asoka, at least in their kernel, for it was customary to increase the diameter of the structure by additional revetments, which themselves contained minor relics. But we cannot determine the age of any monuments of this kind older than the group of sixty topes near Bhilsa, a city of the kingdom of Bhopal, all of which appear to date to the first century after Christ. The largest among these, the tope of Sanchi (*Fig. 72*), has a lower diameter of only 36 m. and a height of 15 m., nearly one-third of which latter dimension represents the elevation of the slightly diminished substructure. The summit of this tumulus was accessible by an inclined plane or a flight of steps, and was originally provided with a balustrade. The solid dome, built of brick and clay, was faced with hewn stones coated with stucco, and, as is evident from representations of topes upon reliefs, either painted or ornamented by sculptures. The before-mentioned rep-

representations and the rock-cut dhagobas in the interior of the Chaitya Caves, which will be described below, show the summit to have been crowned by a shrine with stepped and projecting roof, doubtless the imitation of a reliquary, and to have been shaded by a broad canopy shaped like an umbrella.

The group of topes of Gandhara, on either side of the upper Indus, between Cabul in Afghanistan and Manikyala in the Punjab,

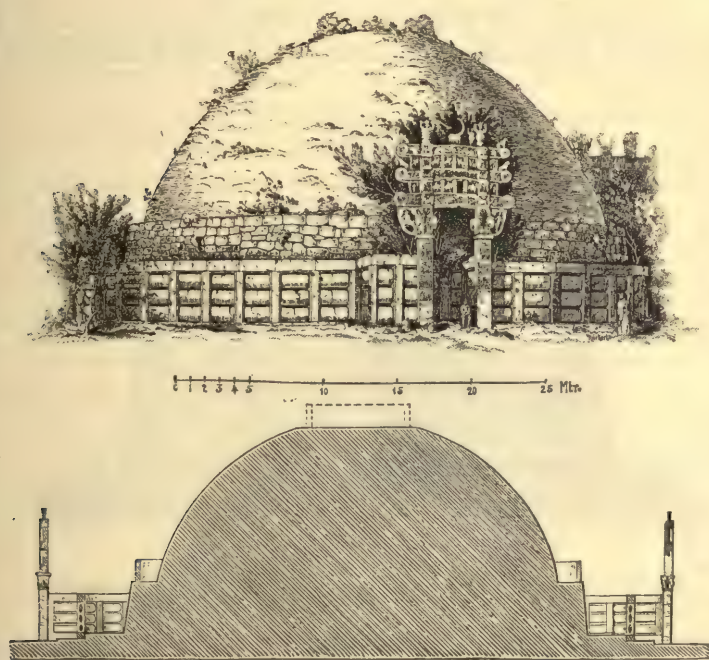


Fig. 72.—View and Section of the great Tōpe of Sanchi.

is more recent, having been built during the first seven centuries of the Christian era. The most important of these monuments are those in the vicinity of Manikyala itself, many of which appear to have been erected in the first century. One of them (*Fig. 73*) is of hemispherical form, elevated upon two distinct cylinders decorated with pilasters and measuring 38 m. and 47 m. in diameter, exclusive of the staircases. Several chambers for relics indicate enlargements of the structure at various times, the last of which alterations ap-

pears, from coins found in connection with it, to have been as late as A. D. 720.

The form of these topes is by no means always the same. As the cones of the Etruscan tumuli are of various angles of elevation, so also do the topes at times rise in parabolic outline to the altitude of towers. This is the case with the tope of Sarnath, near Benares, on the Ganges, probably built in the sixth century after Christ, the height of which is 38 m. and the lower diameter only 28 m.; and also with a smaller tope in the same vicinity, built about A. D. 500, and known as Jarasandha-ka-Baithak, which, with a diameter of lit-

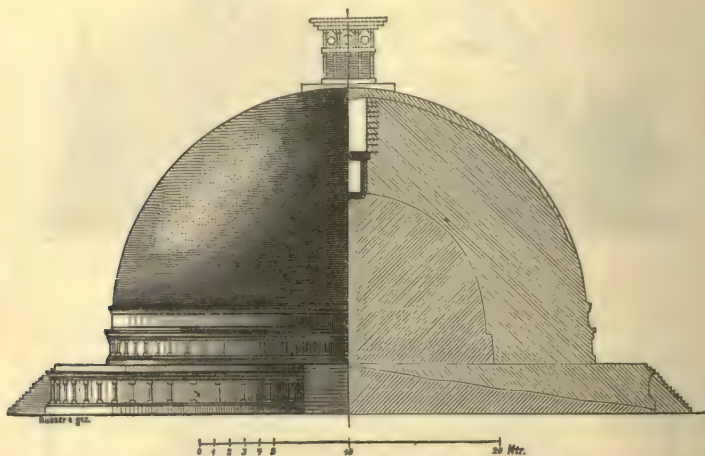


Fig. 73.—Restored Half View and Section of the Tope of Manikyala.

tle more than 8 m., attains to twice that height. The tope of Sarnath appears, however, to be of somewhat different character from the majority of these structures, it containing no relics and having been erected merely to commemorate the presence of Buddha upon that spot. The monument of Buddh Gaya, a tower-like edifice of many stories, erected opposite to the extremely ancient and celebrated bo-tree (*ficus religiosa*), is rather to be considered as a temple than as a tope.

The remains of but few of the topes now present a true and complete picture of their original appearance. Whatever has been spared by zealous sectarians and Mohammedan iconoclasts has

generally been destroyed by the heavy rains of India and by the luxuriant plants, the roots of which penetrate and crumble even the firmest masonry. The topes were particularly liable to this disintegration, not only because of the carelessness and want of solidity of their construction, but because they were in greater part built only of bricks cemented with clay and reveted with stucco.

Many of the topes are enclosed by railings which, although executed in stone, reproduce the forms of a wooden fence with extreme accuracy. The vertical posts, placed at regular intervals, are connected by several horizontal beams, the oval or lens-shaped section of which, and the character of their joints with the uprights, so distinctly indicate a timbered construction that it is quite impossible to recognize from a drawing (*Fig. 72*) that they are of stone. The entrance-portals of these enclosures are also imitated from carpentry work, translated into stone with a profuse ornamentation of figures in relief, the forms of which are similarly related to carvings in wood. These enclosures do not appear in connection with all the topes, those of the great group of Gandhara either being entirely without the fence, or with an imitation of the railings in relief upon the revetment of the substructure (*Fig. 73*).

In some instances there stood before the portals of the enclosures peculiar monuments known as Stambhas, or Lats, destined to commemorate the victories or merits of the rulers, and hence similar in general character to the steles and obelisks of antiquity. Several of these, distinguished by inscriptions of Asoka, and consequently accurately dated, distinctly display Occidental, and notably Hellenistic forms, this being no doubt due to the introduction of Greek culture into India after the campaigns of Alexander and the exchange of embassies between Asoka and the courts of the Diadochi. The best known lat is that near Feroz Shah in Delhi; the most remarkable that found in 1837 lying upon the ground in the fort of Allahabad and re-erected upon a modern pedestal. The inscriptions upon the latter monument date from the time of Asoka (272-236 B.C.) to Samudra Gupta (A.D. 380-400). The shaft has a diameter of .95 m. below, diminished to .65 m. above, and together with its base attains a height of 13 m. The abacus is ornamented with anthemions and astragals of a design closely

resembling Hellenic details; the remainder of the capital is missing. In those cases where the capital is preserved, as on the triumphal columns of Sankissa, in the Doab, and of Bettiah, in Tirhut, it presents a certain likeness to a part of the Persian composite capitals of the age of Xerxes by a wreath of leaves bent downward. Groups of lions or elephants also appear among the forms employed as terminal decorations.

More important in character than the *lats* which stood before the *topes* were those erected before the rock-cut grottos. These caves are among the most interesting monuments of ancient Indian architecture. The appearance of their exterior, which was provided with porticos of columns or of piers, was generally much the same; but the arrangement of the interior is so different as to require us to divide the grottos into two distinct classes: the *Chaityas*, or lofty halls resembling the interior of a basilica, and the *Viharas*, or cloister-like dwellings for the priests, with low rooms of assemblage supported by columns or piers, and a complex of adjoining small chambers. These caves are generally found in groups, twenty or thirty of them often being in close proximity. As far as they are at present known, the grottos of the two varieties, over a thousand in number, appear to have been for the greater part created in connection with the worship of Buddha, not more than two or three per cent. of the entire number being works of the Brahmans, and but seven or eight per cent. of the Jainas. More than nine-tenths of those concerning which we have information are situated in the presidency of Bombay, separate groups appearing throughout India to the borders of Afghanistan.

It has been thought that some of the *chaitya* caves may antedate the age of Asoka. But inasmuch as the grotto of Sattapanni, in Behar near Rajagriha, before which the assemblage of the year 543 B.C. is supposed to have been held, is still, in the main, a natural cavity, the *chaityas* near Barabar, about thirty kilometers to the north of Gaya, should perhaps be considered as the most ancient examples of artificial caves known. Of these the grotto of Sudama, or Nigope, which is dated by an inscription to the twelfth year of the reign of Asoka (*i. e.*, 260 or 264 B.C.), and another, referable to the nineteenth year of the same reign, are of extreme simplicity and

wholly without artistic ornamentation, being plain barrel-vaulted chambers connected with a circular space, the ceiling of which is formed like a cupola (*Fig. 74*). The grotto of Lomasrishi at the same place, little more recent than those before mentioned, displays, on the other hand, the first attempts to create a portal of independent importance.

The chaityas of Bombay are far more important, one of them, known as the grotto of Bhaja, appearing to be as old as the third century before Christ. Its interior is now exposed to view, as the timbered construction which formerly closed the façade (*Fig. 75*) has entirely disappeared. According to the representation of similar monuments which are carved in the right and left upper corners of the front, the wood-work must have formed a heavy horizontal entablature at the height of the impost, and have closed the opening below with a light tracery. The interior forms a hall 18 m. long, divided into three aisles by two ranges of columns, each consisting of eleven octagonal shafts which incline inward and are without bases and capitals. The narrow side aisles were continued around the inner end of the grotto,

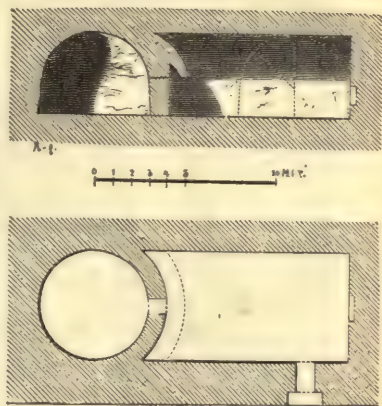


Fig. 74.—The Nigope Grotto near Barabar.

forming a semicircular passage like an apse, this being divided from the main body of the hall by five piers. The rock-cut ceiling of the nave imitates the form of a stilted barrel-vault. The apse is terminated by a conch, and this, as is evident from the remains still preserved, was ornamented with wooden arches shaped like the ribs of a ship, in direct imitation of the free-standing timbered prototypes. The ends of the purlins which existed in the original carpentry are exactly copied upon the façade of the grotto. A small tope stands in the semicircle of the nave, taking the place of the altar within the apse of the Christian church, and increasing the similarity of the chaitya caves to the typical basilicas. Although the four rock-cut

temples of Ajanta are several centuries more recent than the grotto of Bhaja, one of them closely resembles it in general arrangement. The polygonal columns at Ajanta are also without bases and capitals, but they are not inclined; the wooden arches still appear upon the ceiling, but, at least in the apse, are only carved in imitation upon the native rock. The façade of wood seems to have been similar to that of Bhaja, and, like it, has disappeared with the exception of slight traces in the sockets of the beams.

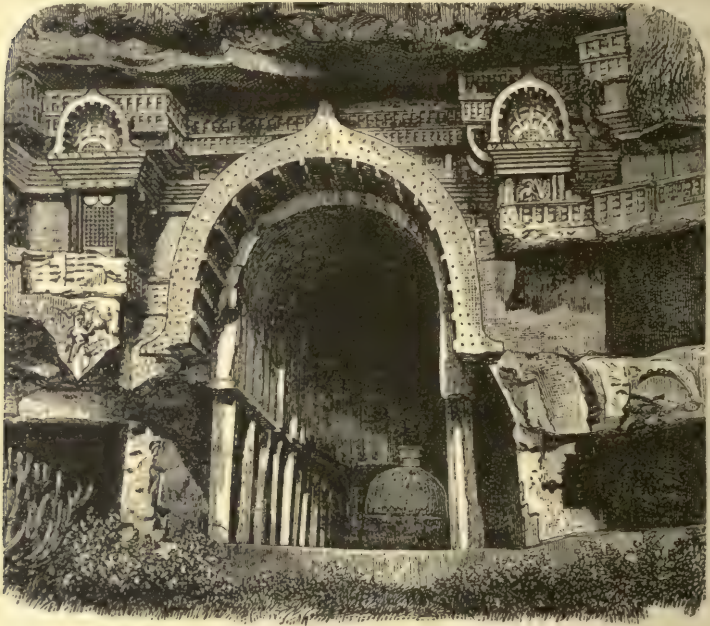


Fig. 75.—Chaitya Temple of Bhaja.

The façade with the portal, originally of timber, appears to have been translated into stone as early as the second century before Christ. This is the case with the chaitya caves of Bedsa and Nassik, which are particularly interesting as direct copies of the pointed-arched roof of carpentry. The first of these is further remarkable because of two stambhas before its entrance, the capitals of which steles display an imitation of a reliquary upon the wreath

of leaves bent downward, and above this groups of horses and elephants, with male and female riders.

The largest and the most beautiful chaitya cave among all the rock-cut temples of India is that of Karli, between Bombay and Puna, dating, according to the inscriptions of Maharaja Bhuti or Deva Bhuti, from about the year 80 B.C. The façade is rendered exceptionally imposing by a portico cut from the native rock and provided with a gallery of wood-work. This has now entirely dis-

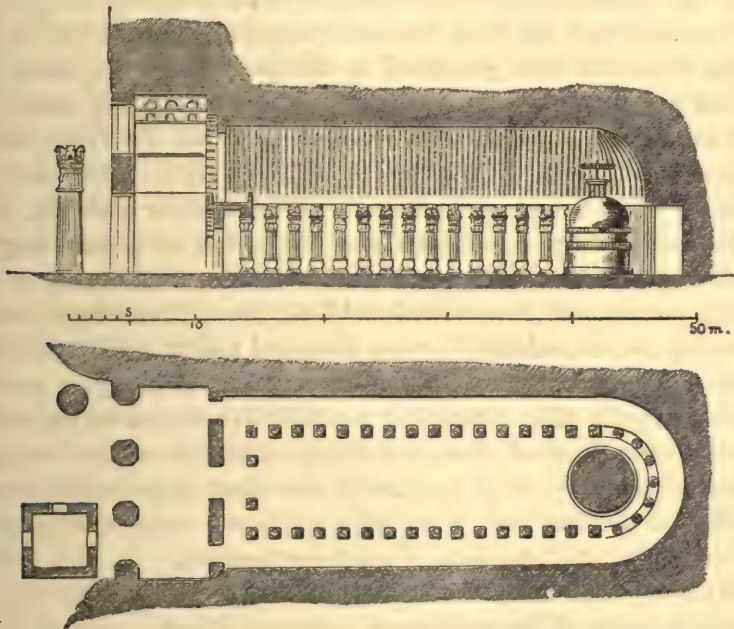


Fig. 76.—Plan and Section of the Chaitya Temple of Karli.

appeared, but its arrangement is evident from the mortises cut to receive the ends of the beams. Before it stood a fine stambha, upon the polygonal shaft of which is a capital consisting of a reliquary and a group of four recumbent lions above a wreath of leaves bent downward, of the type described above. The interior of the chaitya of Karli is remarkably well preserved, even the wooden ribs of the barrel-vault and of the conch still remaining intact. With the exception of seven shafts in the apse, which are

treated like polygonal piers without bases and capitals, the columns of the interior,—fifteen upon either side of the hall,—are similar in form and decoration to the stambhas (*Fig. 76*). The chaitya temples of Ajanta, Ellora, Kenheri, Salsette, Dhumnar, Kholvi, and of many other places in India, are by no means lacking in interest, but a consideration of their individual peculiarities would lead us too far afield.

The viharas, or Buddhist cloisters, appear throughout India in great number, frequently in connection with the chaitya caves. Of the structures of this kind but few, excepting those carved in the native rock, have been preserved to the present day, the more important and extensive free-standing buildings being only known to us from the descriptions of the Chinese pilgrims Fa Hian (about A. D. 400) and Hiouen Tshang (about A. D. 640). The latter of these travellers has given an account of the cloister Malanda, built in the first century after Christ near Rajagriha, an ancient capital south of Patna, the Monte Casino of India; he relates that it was for the greater part four-storied and built around numerous courts, providing accommodation for ten thousand priests and alumni, besides one hundred lecture-rooms. Even more extravagant are the tales told by Fa Hian concerning a certain five-storied vihara, which contained five hundred chambers on the ground-floor, four hundred in the second story, three hundred in the third, two hundred in the fourth, and one hundred in the fifth, while the exterior of each of the stories imitated the form of a different animal.

Mr. Fergusson has pointed out that the terraced pyramids, the so-called rathas of Mahavellipore (compare *Fig. 81*), present some analogies to the description of Fa Hian; still, the accounts given by the Chinese pilgrims are not sufficient to convey an adequate idea of these monuments of Indian architecture. The few free-standing buildings remaining in the tracts bordering India upon the north-east do not make up for this lack of information. The ruins of similar structures at Jamalgi, Takht-i-Bahi, and Shah-dehri so distinctly display the influence of the Seleucidæ, which had probably been introduced through Bactria, that in many respects we should be inclined to consider them as the works of Greek rather than of Indian architects. Thus there remain for our

consideration only the rock-cut viharas of the central part of India, constructions which never attained the size of the before-mentioned free-standing cloisters, but from which, nevertheless, much information concerning those buildings is to be derived, by reason of the exact imitation of many characteristic details in the carving of the rock.

The fully developed architectural form of these viharas, like that of the chaitya temples, does not appear to have been determined until a comparatively recent period of Indian antiquity. The Hathi Gumpha, or elephant grotto, of the mound of Udayagiri, near Cuttack (Orissa), known from inscriptions to have been the work of King Asoka, who lived about the same time as Aira, appears to be in the main a natural cavity. Several other grottos of the same place, dating to a period before the Christian era, also display an entire inability to develop halls of any considerable size, or to adapt fitting architectural forms to the interior of the excavation. The Ganesa grotto, for instance, has but two chambers besides an atrium supported upon five columns; while that of Rani has only two chambers, without a central space, behind a portico of nine columns. The piers of the Ganesa grotto are chamfered at half height, so as to transform the square plan to an octagon; but in place of the capitals there are simply curved projections, which appear as precursors of the console capitals developed in later times (*Fig. 78*). Still another vihara of the mound of Udayagiri shows how little the design of the façade was formed after any established architectural type, the exterior taking the shape of a tiger's head, whose open mouth forms the entrance to the single chamber of the interior.

Several viharas in the western part of India, antedating the Christian era, are decidedly more developed than those before mentioned; this is particularly the case with the chaityas of Bhaja and of Bedsa and with two of the grottos at Ajanta. The first of these, the most ancient, has five chambers, to which access is provided by a passage cut directly into the rock and remaining open at the front. The second has nine chambers, grouped around a hall which is terminated at the inner end by an apse. The older of the two grottos of Ajanta, above referred to, consists of a square

hall with four chambers opening from it. The interior of the more recent (*Fig. 77*), which was probably constructed but shortly before the Christian era, displays for the first time a hypostyle hall with four columns, besides an atrium or portico of two columns, and nine chambers, arranged in perfect regularity upon three sides of the hall. In later times the arrangement of the atrium and its columns was little varied, but, on the other hand, the hypostyle hall was frequently omitted altogether, as is the case with the viharas of Nassik, which date to the first three Christian centuries. The general features manifest in Ajanta continued to be further developed in later constructions of the kind. A rectangular plan,—tetrastyle or octostyle atria,—grand hypostyle halls, similar

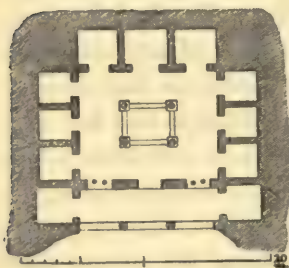


Fig. 77.—Plan of the Vihara Grotto of Ajanta.

in plan to the many-columned courts of Greece,—and regular ranges of chambers on three sides of the halls became general, as did also the introduction of chapels in the middle of the rear wall,—as, for instance, in several viharas of Ajanta, in the grotto at Bagh, in the Durbar grotto at Salsette, and elsewhere.

In common with the architecture of almost all civilized nations, the forms of the columns exemplify most clearly the peculiarities of the various styles. The development of the isolated support is more readily followed in the viharas than in the chaitya grottos. As in Egypt, the treatment of the shaft results from the chamfering of the angles of a pier of square plan, the eight and the sixteen sided prism being thus determined. The most primitive transformation of the rectangular pier is that appearing in the Ganesa grotto referred to above, where the number of angles is only increased for a short space in the middle of the support (*Fig. 78, b*). A second phase of development is marked by the adoption of the octangular plan for the entire height of the shaft, as, for instance, in the chaitya temple of Bhaja (*Fig. 75*). A favorite device of later times was to divide the height of the column into sections of rectangular, octangular, and sixteen sided plan, the greatest number of angles being

in the middle of the shaft. There was no channelling to emphasize the arrises; but an ornamentation, at times in horizontal bands, is frequently applied to mask the junctures of the different prisms (*Figs. 78, a and c*).

As was the case with the columnar orders of the Egyptians and of the Greeks, two distinct classes of capitals early appear in the architecture of India: the one developed from expedients of construction, the other resulting from a decoration of floral, and even of animal forms. The first of these varieties gives æsthetic expression to the necessary projection of the capital, by placing consoles in the direction of the ceiling beams, thus fulfilling, in a highly satisfactory manner, the requirements of an intermediate member between the support and the imposed weight. The advantages of this arrangement appear especially in those cases where the column stands beneath the intersection of two main beams, so that the brackets are affixed to four sides of the shaft. The three illustrations of Indian console capitals given in *Fig. 78* plainly show that these projections, as soon as they have obtained a higher development than that observable in the piers of the Ganesa grotto, are similar in principle to the spirally ornamented brackets of Assyrian and Phœnician capitals, and consequently to the perfected Ionic helix of Greece.

The second manner of treatment, based upon a floral decoration, was, in Egyptian architecture, extended to the entire column; in India, on the other hand, it was usually restricted to the capital and to the base. In the latter case, as in the former, the bud or the calix of a flower was the form most commonly imitated, this model, however, being treated with the greatest freedom. The tendency to repeat the horizontal divisions of the shaft by encircling bands, and to multiply the members both of the capital and of the base, was so unfavorable to the design as a whole that the floral supports of India did not remotely attain to the organic unity of the Egyptian lotos columns,—even as the chamfered piers above described were inferior to the proto-Doric shafts of Beni-hassan. The luxuriant vegetation of India perhaps accounts for the overloaded character of the floral column. Rows of leaves, bent both upward and downward, appear upon the calix capitals in a manner resem-

bling that observable in the Persian monuments of the age of Xerxes, to the details of which one of the capitals of the Vihara Grotto at Ajanta (*Fig. 79, c*) is strikingly similar. A capital of the Yadnya-Sri Grotto (*Fig. 79, b*), placed beneath an abacus with projecting brackets, approaches in form the spirals of the Ionic style, as it is ornamented by twisted foliage falling at the four corners over a heavy roundel similar in character to an echinus. This transformation of the round section of the capital to a square is

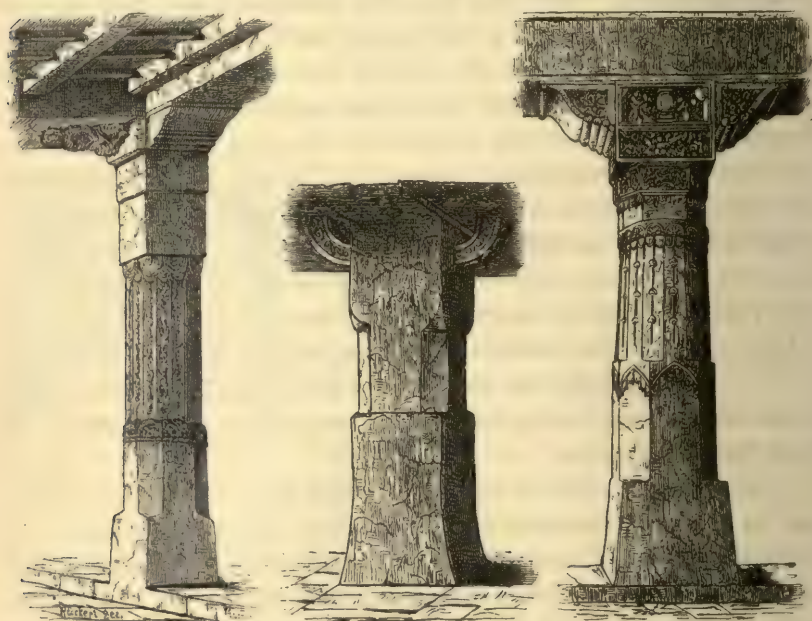


Fig. 78.—Buddhist Supports with Console Capitals.

a. From a Grotto at Ajanta.

b. From the Ganesa Grotto
near Cuttack.

c. From a Grotto at Ajanta.

perhaps to be derived from that form of the column in which a reversed calix forms the lower part of the capital, corresponding to the similar but upright ornament of the base, while the bud of the flower seems to be enclosed in a square shrine resembling the Buddhist reliquaries described above. Decorations of this kind have already been met with upon the stambhas and the interior supports of the chaitya halls. One of the columns

of the Nahapana Grotto at Nassick, answering to this description, is represented by *Fig 79, a*. The images of animals,—lions, horses, elephants, or oxen, as in the last-mentioned instance, with or without human figures,—are also transferred from the stambhas to the capitals of columns, where they are employed to mask the juncture of the support with the horizontal beam,—much in the same way as were the double-headed lions and bulls of Persian architecture.

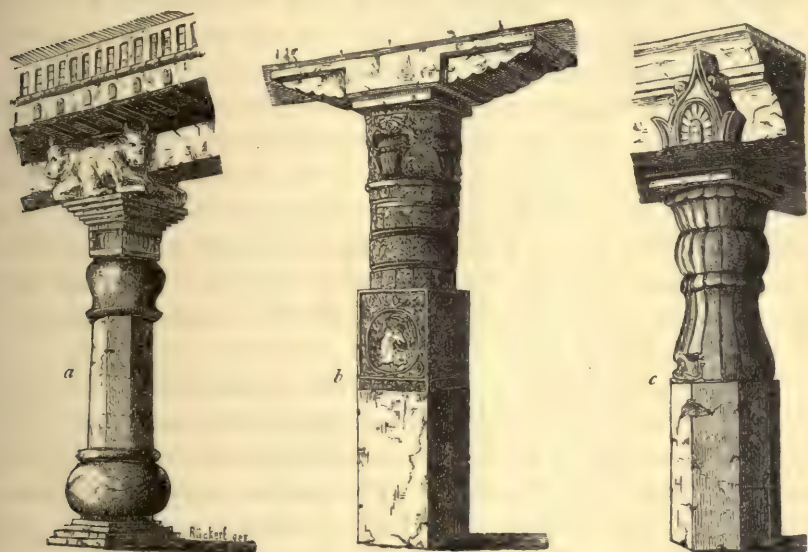


Fig. 79.—Buddhist Columns with Floral and Animal Ornamentations.

a. From the Nahapana Grotto
at Nassick.

b. From the Yadnya-Sri Grotto
at Nassick.

c. From a Vihara Grotto
at Ajanta.

When consoles are added to floral capitals, but little height is commonly allowed to these projections. The architrave is low, indeed not much thicker than a board, while the other members of the entablature are generally hidden behind a projecting cornice of convex profile. The ceilings are formed by a simple construction of intersecting beams, this carpentry being as exactly imitated in the grottos of India as in the rock-cut tombs of Etruria.

The domestic edifices of India continued to be built almost exclusively of wood. As far as the forms can be judged from the analogies of ecclesiastical architecture, and from the representations

on reliefs, the terminations of doors and windows were of the same pointed arch which has been noticed in the outline of the topes, and in the portals and vaults of the chaitya caves. The different stories were probably set back so as to form narrow terraces, the reliefs showing balustrades, similar to those used for the enclosure of the topes, to have been so arranged as to hide the lower part of the windows. The uppermost story receded even more from those below it,—the terrace surrounding it being covered with a lean-to roof, which was upheld by the posts of the balustrade. Many-storied buildings seem to have been the rule.

In the beginning of the seventh century after Christ Buddhism was decidedly upon the wane. Troublous times followed, during which the history of India is a blank, or at best a confused account of civil wars which for three centuries devastated the country. At the end of this period Buddhism appears limited to a small corner of Bengal,—in the West flourished the Jaina sects, an outgrowth of the older religion,—in the East the worship of Vishnu,—in the South that of Siva.

Jainism soon became pre-eminent, and extended itself over the greater part of Western Asia. Concerning the beginnings of its art little is known, but it seems at first to have been entirely dependent upon that of the Buddhists. The peculiar style of the Jainas does not appear to have been fully developed much before the eleventh century, and is thus almost of modern origin. We hence limit our description to its earliest period and to its most rudimentary traits.

The most important characteristics of this style were determined by the exclusive adoption of stone in place of timbered constructions, both the general design and the details being decisively influenced thereby. The forms of arches and vaults do not imitate the curved and pointed ribs of wood, as in the architecture of the Buddhists, but present themselves as a development of the primitive system of the false arch,—that is to say, of horizontal courses of masonry so projecting as to form a ceiling. In place of the massive topes we find, among the Jainas, the so-called Sikras, or Vimanas, structures somewhat resembling the Tholoi of Greece. The external appearance of these monuments indicates the shape

of the high, pointed arched chamber within. They are of square plan, elevated upon a cubical substructure, and are terminated upon the exterior by a dome similar in form to a flattened melon. With these vimanas are connected more or less complicated colonnades, the design of which shared the tall proportions of the tholoi, and was not without a certain magnificence and charm.

In the columns of this style the four-sided console capital is repeated at two-thirds the height of the shaft (*Fig. 80*), serving here as the impost of a peculiar strut, which provided a support for the middle of the horizontal beam. The wide span of the architrave, rendered possible by this rational expedient, was connected with a complicated ceiling construction, which formed, by a system of squares alternately parallel to the sides and to the diagonal of the plan, a varied and pleasing system of coffer. The buildings of the Jaina style, commonly restricted to moderate dimensions, thus attained a light and

graceful character. On the other hand, numerous temples and chapels erected at various periods were often combined with a single complex, so as to form an extended city of sacred edifices. The holy mountain of Satrunjaya, near Palitana, and the buildings at Girnar, not far from Puttun Somnath, are remarkable examples of such aggregates.

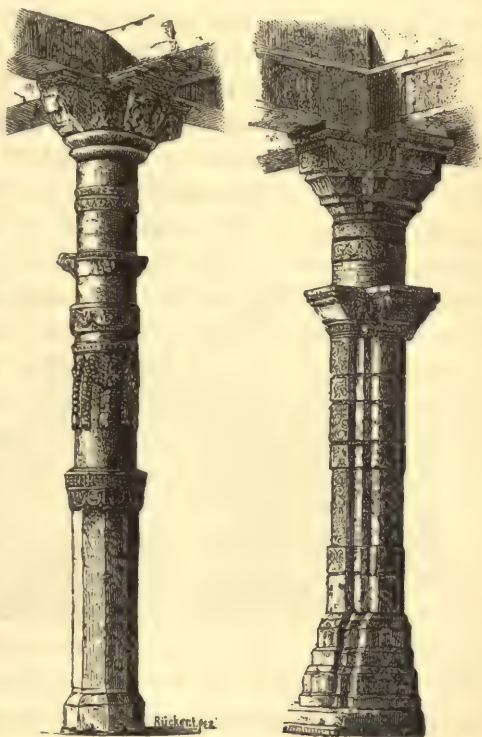


Fig. 80.—Columns of the Jaina Style.

a. From the so-called Ganthai at Khajuraho (seventh century).

b. From the Temple of Gyaspore (ninth century).

A third style, differing both from that of the Buddhists and that of the Jainas, is known by the name of Dravidian. This style was employed as well by the worshippers of Vishnu as by those of Siva,—the artistic work of these sects, which were otherwise so antagonistic, being so similar that their sculptures are generally distinguishable only by the subjects represented. The monuments of the Dravidians are not as old as those of the Buddhists. There are but few instances of works of this style dating to the fifth or sixth centuries, chief among which are the so-called Rathas of Mahavellipore, near Madras; and even those of the eighth or ninth centuries, such as the kylas buildings of Ellora and the great temples of Purudkul (Pattadkul), are exceptional. Indeed, by far the greater number of the monuments of Dravidian art were erected subsequently to the Middle Ages,—the period of its greatest activity being as late as the sixteenth and seventeenth centuries. Hence, this manner of building would not come under our present consideration at all, were it not that the immutability of Dravidian designs permits us to see even in the latest works, such as the Perumal Pagoda, at Madura, a close similarity to the original forms of the style, so that modern edifices may serve as direct illustrations of the ancient remains.

The Rathas of Mahavellipore (*Fig. 81*) are carved from enormous isolated blocks of granite. Upon the exterior they were carried to a certain degree of completion, but the chambers within were left partially excavated and unfinished, probably on account of the difficulties presented by fractures in the rock. Two of the rathas are of small dimensions, each side of the approximately square plan measuring between 3 m. and 4 m., with a height of from 5 m. to 6 m.; a third is 8 m. square and 10 m. high. These three structures seem to have been modelled after the viharas of the Buddhists, and in their turn served as prototypes for the free-standing vimanas of the Dravidians. The two remaining rathas are oblong, and follow in some measure the arrangement of the Buddhist chaityas.

The Dravidian style appears far more developed in the Kylas of Ellora, which probably dates from the ninth century. This rock-cut temple,—one of the most important works of Indian architecture,—consists of a connected series of monuments which, instead

of being hewn out of isolated rocks, as at Mahavellipore, are excavated from a solid plateau according to a regular plan. The quarrying out of the extensive court, leaving the entire temple standing within it, must have been a task of enormous difficulty. Moreover, at Ellora the interior was not neglected, as was the case in the before-mentioned rathas, and the rigid symmetry of the original design excluded all adaptation of the plan, during the progress of the work, to the peculiarities of the geological formation.

The ornamentation of these rock-cut monuments, favored by the manner of their execution, was profuse, but this was far sur-



Fig. 81.—The so-called Rathas of Mahavellipore.

passed by the sculptured decorations of the free-standing Dravidian temples, which were so overloaded as to render a systematic description of them here impossible. The most fantastic decorations, consisting of floral and animal forms as well as of patterns of straight and curved lines, are combined with mouldings and cornices in a manner so disconnected that the entire structure appears unorganized and without fundamental static principles. The decorative details, like the vegetation of the country, form a rank overgrowth, entirely burying the constructive members beneath a whimsical and distorted ornamentation.

It would lead us too far to follow in detail all the remaining

architectural styles of India,—the chief works of which, moreover, do not come under our present consideration, inasmuch as they were created subsequently to the mediæval epoch and to the Mohammedan invasion. The Chalukyan style, which appeared in the Dekan, between the southern coasts of India and the Ganges, and that style which extended from the Ganges to the slopes of the Himalayas, were both formed by a combination of the Jaina and Dravidian styles, in such a manner that with the former the Dravidian, and with the latter the Jaina, elements were the most prominent. Among the Himalaya Mountains themselves, as in the Punjab during the Buddhist period, Western influences are plainly recognizable. None of these districts, however, produced a fully pronounced and characteristic style: in great measure because of the interruption of the natural development by the invasion of the Moslems, and by the introduction through them of Persian elements. The difficulties presented to a systematic consideration of Indian art by the anomalous character of the monuments are greatly enhanced by the almost entire lack of trustworthy historical information in regard to these works. Even less is to be gathered concerning the art of the countries to the east of India, among which Siam, Cambodia, and Java alone have been explored, and are not entirely without historical data. Still it is certain that their civilization, especially in the Southern districts, is more closely related to that of China than to that of India.

Among a people so entirely in conformity with the nature by which they were surrounded, leading so passive and adventitious a life as did the inhabitants of India, circumstances were as unfavorable to sculpture as to architecture. The employment of decorative carvings was, it is true, so extensive as even to interfere with the development of the architectural structure. But the art is lacking in the most important fundamental principles,—namely, in the devoted study of normal and typical forms, as well as of individual peculiarities, and, above all, in energy of conception and treatment. The dreamy and effeminate life of India rendered all higher development of sculpture impossible, not permitting it to attain an independent and clearly pronounced individuality, and giving it the nerveless character of a plant growth while allowing full license to

a capricious and arbitrary imagination. As the architecture was without a dominating framework based upon static laws, so were the works of sculpture soft and formless, flaccid of muscle, and apparently without a bony structure. In some representations of perfect quiet and drowsy reflectiveness, as in the images of Buddha and of various deities in the Indian Pantheon, native sculpture attains a great perfection of style by reason of the entire harmony between the subject and the manner of expression. But as soon as it passes beyond the limits of this inert and introspective dream-world, the art appears feeble and inadequate.

This inadequacy is not evident in sculpture alone, and should not be regarded as resulting from any special lack of aptitude for that art. In poetry, for instance, the great epics *Ramayana* and *Mahabharata*, as well as Kalidasa's *Sakuntala*, the products of very different periods, are alike essentially lyric: although displaying great acuteness and delicacy of appreciation, they certainly do not favor the creation of individual and sharply characterized forms. These visionary



Fig. 82.—Relief from the Tope of Amravati.

Indian gods of fixed gaze, whose noiseless chariot wheels raise no dust, who cast no shadows, and walk without touching the ground, lend themselves as little to pictorial representations as do the images of the Christian Apocalypse. The monstrous creations with many heads, arms, eyes, etc., on one body, appear most unfavorably in the formative arts, and the preparatory work of the poets, in Greece so serviceable, was in this respect a positive disadvantage to Indian sculpture and painting. Drawbacks of this nature are particularly apparent in the portrayal of legendary and historical subjects, in which the action is superficial and without real force, the flaccid muscles of the body

appearing incapable of energetic movement. This impotence is not relieved by the multiplication of the extremities, nor by the sprawling postures of the arms and legs, which rather appear to be disjointed, or, at best, to be outstretched in a lazy and ineffectual manner.

Nevertheless a certain beauty cannot be denied to Indian art,—even as the Hindoos themselves are to be reckoned as the most comely among the Asiatic races, being pleasing of countenance, with tall and graceful figures and delicately formed extremities. Nor was the race lacking in an appreciation of these merits, as the works of the Indian poets abundantly prove. Still the chief delight is found in round, voluptuous, and graceful forms,—in a



Fig. 83.—Relief from the Tope of Sanchi.

smooth and soft flesh, which hides the structure of bones, sinews, and muscles. Hence the larger the dimensions of the sculptures the more inadequate does the treatment appear: for while the mere outline may be sufficient for a pleasing effect in works of small scale, in colossal figures the lack of modelling and the vacancy of the surfaces is painfully evident. In these respects the Indian works contrast most unfavorably with the sinewy vigor of the sculptures of Egypt, or with the heavy muscular force of those of Mesopotamia.

The peculiar disposition of the Indians, and especially the sensitive appreciativeness of their nature, though so unpropitious to

sculpture, might be supposed to be decidedly favorable to painting, and particularly to the expression of human feelings through that art. Yet although representations of imaginary landscapes are known to have been attempted at an early period, it still appears that the Hindoos never elevated painting above a mere colored decoration. Indeed their painting is less important than their weaving and embroidery, and, at least in the decoration of utensils and the drawing of miniatures, seems to have been left in the hands of women. The weaving of carpets, for which the Indians had been famed from the earliest times, was evidently cultivated to the disadvantage of painting, which art was employed in more extensive tasks only as a substitute for textile decoration. Few vestiges of painting dating to the earlier periods of Indian history have been preserved ; and it is not always safe to draw inferences from modern works in regard to the characteristics of a former style. We are thus obliged to content ourselves with the authority of the literary remains in maintaining that colored decorations were popular among the ancient Indians, but were not elevated from a mere ornamentation of walls and utensils by common artisans to an independent artistic importance. In those exceptional cases where painting attained to some eminence this was probably due chiefly to the interest of the subject represented, and to the decorative general effect of the composition. This was, at all events, true in regard to the sculptures in relief, which must have been the more similar to paintings, inasmuch as the reliefs, devoid of all formal regularity, had themselves deviated from the principles of sculpture and approached to the character of painting.

The art of the great countries of Eastern Asia is strikingly different from that of India. The practical and rational tendencies of the Chinese and Japanese have led them to consider usefulness as the criterion of all human activity ; they have thus been saved from sinking into that dreamy life of transcendental speculation peculiar to the Hindoos. The close ethnographical relations of the Chinese with the Polynesian races rendered them little inclined to adopt the artistic influences of the South and West, even after the time when the religion of Buddha had in great part superseded the native doc-

trines of Confucius. The intellectual disposition of the inhabitants of the celestial empire is so sober-minded and unimaginative that there can be but little doubt that the third religion of the country, that of Lau-tse (the Prophet of Reason), which is so entirely in accordance with the national character, will continue to be further and further extended among the Chinese. The formative arts, in their higher significance, thus have had no existence among this people, who are even destitute of the more universally appreciated art of poetry. As they have ever done all things with reference to the greatest practical usefulness, every branch of workmanship has steadily flourished among the Chinese since a period of history more remote than that illustrated by the memorials of any other people, with exception, perhaps, of the Egyptians and the Mesopotamians. As is well known, the Chinese have preceded the Occidentals in technical inventions of the most various kinds.

So entirely lacking was the feeling for monumental architecture among the Chinese, on the other hand, that even their works of engineering were seldom of important dimensions, and never attained to a real grandeur of design. The great Chinese wall, built about 200 B.C., is unduly celebrated, notwithstanding its length of over two thousand kilometers, as it nowhere attains a greater height than 6 m. It did not serve the purpose for which it was built, and the attempt to form a boundary fortification of this extent was not repeated. Long-continued peace and the surety of ownership in Eastern Asia rendered the construction of works of military engineering unnecessary. In China those classes of society were lacking which elsewhere have fostered monumental constructions: there was no luxurious and magnificent hierarchy, and no warlike hereditary nobility. Even the imperial palaces were not remarkable for stability and for imposing architectural effects, and it is not strange that the subjects were little inclined to erect enduring structures for the benefit of later generations.

In those works which were not created to serve the ends of practical usefulness, and which are to be especially considered as monuments of art, the Chinese and Japanese displayed little more than a childish trifling. Their art consequently is doll-like,—not without its charms in those cases where the dimensions and pur-

poses of the works agreed with this tendency, but mean and inadequate when dealing with grand monumental problems. Chinese temples, even when enlarged far beyond the dimensions of the ordinary village pagodas, always retained a certain similarity to the pavilions of a pleasure-garden. The methods of construction, as well as the materials employed in the decoration of such edifices, as, for instance, lacquered wood and porcelain, degrade architecture to a level with the manufacture of utensils. The curved edges of roofs, the unnaturally twisted ends of the beams, ornamented with fantastic carvings, the dangling bells, etc., have no higher character than a coquettish prettiness, and cause the buildings to appear like magnified bric-à-brac. The entire art of China may be described as an extension and elaboration of the peculiar toys of that country. The funeral monuments resemble nothing more than Louis Quatorze clocks and similar rococo ornaments, for which, indeed, since the introduction of Chinese porcelain into Europe, they have not unfrequently served as direct models. The richly adorned portals (*pailus*), though executed in stone, appear to be a whimsical imitation of elaborate cabinet-work. The temple towers (*taas*) are like magnified centre-pieces of banqueting-tables, and compare most unfavorably with the topes of Indian architecture,—the senseless reduplication of the encircling roofs painfully suggesting the stuttering repetition of one syllable in the place of a rational architectural language. (*Fig. 84.*) The most celebrated of these structures is the porcelain tower of Nankin,

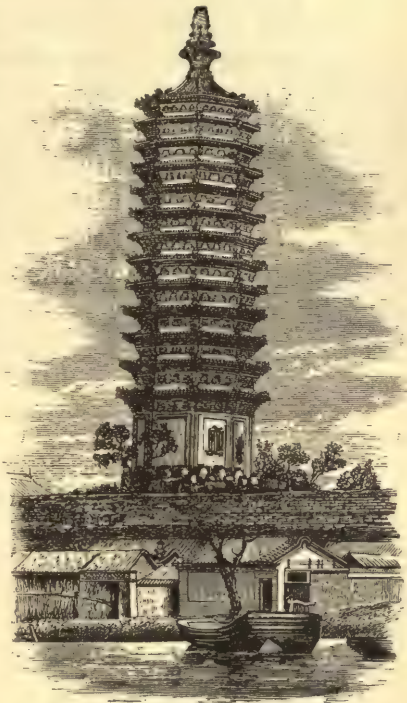


Fig. 84.—Pagoda of Tung-Chow, China.

built between A.D. 1412 and 1431, which reaches the height of 70 m.

The sculpture and painting of Eastern Asia was of a similar toy-like character. The methods of workmanship and the materials devoted to these arts can be fittingly employed only in works of small dimensions—sculpture being chiefly represented by porcelain models; painting by lacquered work and water-colors. An astounding technical ability is recognizable in almost all instances, but formal beauty and the higher qualities of art are rare. The images, even when not professedly caricatures, or of a comical nature, seldom rise above the character of graceful and pleasing trifles. Moreover, in the great majority of cases, they are adapted to practical employment, the petty nature of the Chinese delighting especially in the careful ornamentation of utensils. An elevated and monumental art is incompatible with such æsthetic limitations and with so prosaic a turn of mind.



Fig. 85.—Façade of the Alcazar, Seville.

MOHAMMEDAN ART.*

THE civilization of Asia had already passed through the phases of artistic development described in the foregoing chapters, when the inhabitants of the Arabian peninsula,—who had previous-

* *Description de l'Egypte. État moderne.* Tom. XVIII. Paris, s. a.—A. de Laborde, *Voyage pittoresque et historique d'Espagne.* Paris, 1812.—J. J. Hittorf et L. Zanth, *Architecture moderne de la Sicile.* Paris, 1826–1835.—P. Coste, *Architecture arabe de Kaire.* Paris, s. a.—Girault de Prangey, *Monuments arabes et moresques de Cordova, Seville et Grénade.* Paris, 1835–1839.—*Choix d'ornements moresques de l'Alhambra* (A continuation of the preceding work).—*Essai sur l'architecture des Arabes et des Mores en Espagne, en Sicile et en Barbarie.* Paris, 1841.—*Monuments arabes d'Egypte, de Syrie et d'Asie Mineure.* Paris, 1846.—H. Gally Knight, *Saracenic and Norman Remains, to illustrate "The Normans in Sicily."* London, 1840.—J. Goury and Owen Jones, *Plans, Elevations, Sections and Details of the Alhambra.* Paris, 1842.—M. de Vogüé, *Le Temple de Jérusalem.* Paris, 1864.—F. v. Schack, *Die Poesie und Kunst der Araber in Spanien und Sicilien.* Berlin, 1865.—Prisse d'Avennes, *L'Art Arabe d'après les monuments de Kaire.* III. Voll. Paris, 1869. II. Ed.

ly taken no part in the great historical movements of antiquity,—came forth from their desert homes to accomplish their high mission. This was the third invasion of barbarians into that portion of the world which owed its civilization to antiquity. It was destined to be more important than the first migration of the northern European races, which, having no artistic traditions of their own, were entirely receptive of the Græco-Roman culture; and more permanent than the second movement of Central Asiatic hordes, which retreated without leaving lasting memorials behind them. The early followers of Mohammed were intellectually superior to the races of the second migration, and, if inferior to those of the first in this respect, had at least the advantage of possessing a highly important religion of their own, which assured to them a more peculiarly national culture than it was possible for the Christianized tribes of Northern Europe to maintain in the face of the antique traditions of Rome. It is hence not strange that the civilization of the Moslems more rapidly attained to an independent development than did that of the Germanic races.

Unfortunately, it is not possible to form any adequate idea of the artistic achievements of the Arabian people in the epoch before Mohammed. With the exception of poetry, which is less influenced by geographical limitations, the arts of this barren and inaccessible land appear to have attained but slight independent development, and to have profited but little by the more advanced civilization of neighboring countries. The geographical character of their native country did not incline these "Children of the Wind" to settle in permanent habitations. Mounted upon noble horses, they drove their herds from one pasturing ground to another, carrying upon the backs of camels all their household possessions,—the amount of which was limited to the capacity of this beast of burden, in order not to interfere with the mobility of the horde. Their building was consequently restricted to hurdles and tents, their works of carving and colored design to weapons and to woven fabrics.

This nomadic character was retained in the few cases of permanent settlements. Even in the towns the sacred places remained little more than simple enclosures, and none of the artistic produc-

tions attained to a monumental importance. The finer utensils, and all those articles which can be manufactured only by a regular and settled industry, were without doubt imported from neighboring countries, in exchange for the raw materials carried by the adventurous inhabitants of the desert to the ports of Arabia and thence to Syria, Persia, and Egypt. It will be remembered that it was during commercial journeys into Syria that Mohammed conceived those ideas which were destined to bring so great a part of the world under the sway of his countrymen. The indigenous arts seem to have been limited to weaving and tapestry. Seated upon the backs of swaying dromedaries, during the long journeys of the migratory tribes, the women spun the fine threads of wool, and during the halts of the caravans at noonday and evening, wove and embroidered the carpets and garments with all that wonderful imaginativeness of design which appears in the romances and epic poems of the Arabian story-tellers. This textile industry was transferred in later times to the provinces of Shusistan and Faris in Southern Persia, where it was developed in the so-called *Susandschird*, a needle-work upon plain ground, closely related to the high-warp tapestry (*hautelisse*) of France.* This bright play of woven threads forms the basis of Arabian art. The tents of the sheiks and the hangings of the sacred Caaba, at Mecca, must have presented the characteristic forms of Arabian decoration long before these were united to an architectural structure. This decoration of textile derivation is the only characteristic which the architecture of the Arabians has preserved unaltered in all those parts of the three continents then known which were conquered and civilized by them.

A conquering people easily transfers to the subjugated country its language and its customs, its poetry and science, its industry and even its sculpture,—but rarely its architecture. The aboriginal methods of construction frequently predominate even in those instances where the invaders brought with them a decidedly superior style of building, as was the case in Egypt under the Hellenistic

* J. Karabeczek, *Die persische Nadelmalerei Susandschird. Ein Beitrag zur Entwicklungsgeschichte der Tapiserie de haute lisse.* Leipzig, 1881.

Ptolemies. If the conquerors be without an independent and fully developed architecture, it is almost unavoidable that they should adopt the forms previously existing in the country which they have occupied. The new inhabitants may, however, modify the general plan, and may introduce a foreign character, illustrative of their former artistic conceptions, betraying, it may be, their lack of experience or of ability for similar constructions. They generally base their ornamentation upon national traditions, derived from other branches of artistic workmanship,—the decorations most clearly speaking the language of the invaders. It is only after a certain period of experiments that a decided compromise between the aboriginal and the imported elements is effected, and that a peculiar style is determined, differing considerably in the various districts occupied by the conquering people.

It was thus with the Arabians. In the short period of one hundred years after the fall of the last of the Sassanidæ (Yezdigird III., A.D. 641), the Moslems had conquered not only all the countries bordering Arabia, but almost all the civilized lands of that epoch, from the Ganges to the Strait of Gibraltar,—the most enormous tract over which a victorious race has ever carried its arms. Before the eyes of these fanatical sons of the desert there arose the architectural monuments of the antique and of the early Christian civilizations,—they had but to choose which of these structures were best adapted for them to imitate in their religious edifices. The temples of the Egyptians, Syrians, Mesopotamians, Indians, Greeks, and Romans, could not serve the followers of Mohammed as models, on account of the inadequate accommodation provided by their cramped interiors. And the styles of all these races were, during the seventh century after Christ, in more or less advanced stages of debasement. Furthermore, the followers of Mohammed abhorred every taint of idolatry, and consequently rejected the architectural methods employed by these religions. The position of the Koran in regard to Judaism and Christianity was entirely different. The Christian buildings especially were more nearly adapted to the conceptions and the rites of the Mohammedans, and presented themselves the more directly as models, inasmuch as the greater part of the countries at first invaded by the Moslems had been

Christianized,—namely, the southern lands of the eastern Roman Empire, the northern coast of Africa, the islands of the Mediterranean, etc. The early Christian and Byzantine churches were more frequently remodelled than destroyed by the Arabs, this adaptation being continued until the invaders had prepared themselves for independent architectural efforts and the development of a peculiar style.

If we may judge from the condition of Syria, the Mohammedan occupation was at first characterized by great toleration. The severe Omar even permitted the Christians of Damascus to hold religious services in the basilica of St. John, which had been transformed into a mosque, the eastern part of the building becoming Mohammedan, the western remaining Christian. This remarkable state of things continued for seventy years. More important were the alterations and imitations of Christian buildings which early appear in Syria. The seven-aisled mosque El-Aksa in Jerusalem, probably begun by Omar, A.D. 638, and completed by Abd-el-Malek, 692, was, without doubt, formed by the rebuilding of a basilica, perhaps of the church of St. Mary, erected by Justinian. The celebrated Kubbet-es-Sachra (Mosque of the Rock), on the site of the altar for burnt offerings of Solomon's Temple, is so closely related in plan, construction, and details to the cupola churches of the earlier Byzantine style that it has even been asserted that this building was a Christian church re-arranged for the purposes of Mohammedan rites. Modern investigations, however, make it more probable that it was entirely built under Abd-el-Malek, A.D. 688, but by Byzantine architects and masons. (*Fig. 86.*) It was quite natural that the caliphs and their emirs should employ architects of the eastern empire, practising the Byzantine style, in the first Christian countries which they had conquered, and this is, moreover, proved to have been the case by repeated accounts of the caliphs inviting architects even from the court of the Byzantine emperors. Such an interchange is not surprising in view of the ready recognition of the earlier civilization in many other ways. The administrative accounts of the empire of the caliphs, for instance, were entirely in the hands of Christian Greeks, while the masterpieces of Greek literature, early translated into Arabic, were thoroughly

studied in the schools of Bagdad, Cairo, and Cordova, at a time when they were almost unknown in the lands not occupied by the Saracens.

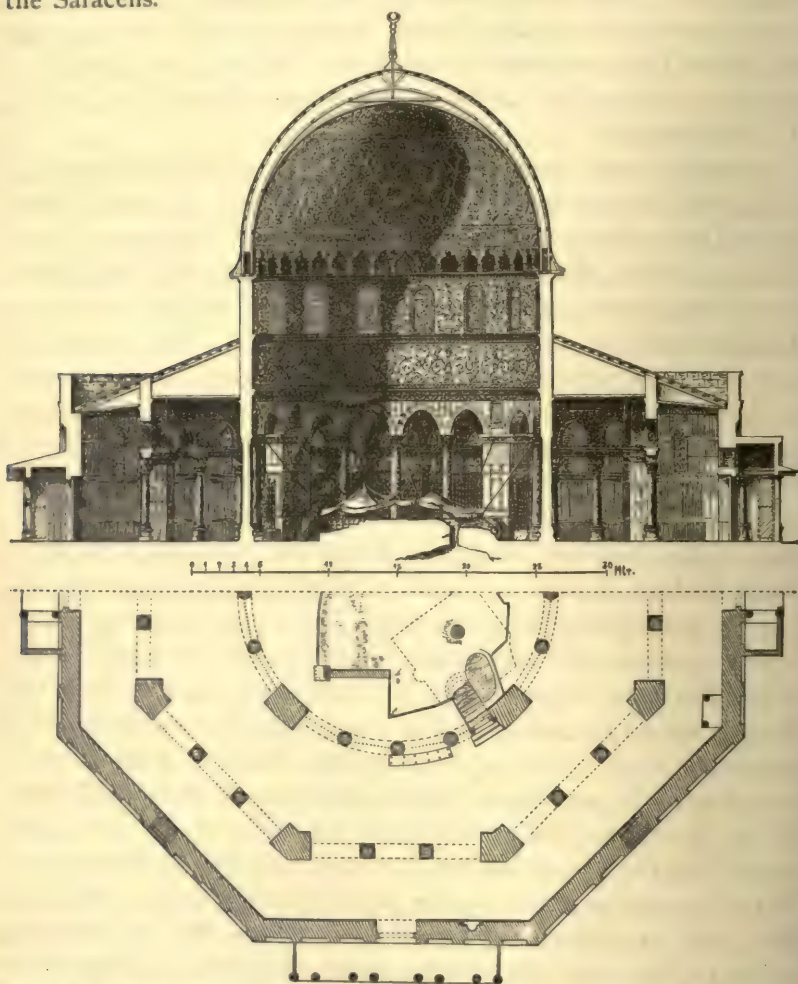


Fig. 86.—Plan and Section of the Kubbet-es-Sachra (Mosque of the Rock), Jerusalem.

The Arabian conquerors attained to a greater independence in Egypt. This country was first invaded from Syria by Amru, one of Omar's generals, at a time subsequent to the occupation of Persia. But Egypt had unquestionably contributed to the first

development of Arabian culture: its influence was more easily introduced across the Red Sea, from Assouan and Edfu to Mecca and Medina, than was that of Syria through the trackless deserts of the North. As early as the times of the exodus the civilization of Egypt was introduced by nomadic tribes into Northern Arabia. The Caaba of Mecca, antedating the age of Mohammed, probably owed its arrangement to some similar transference of Egyptian ideas,—perhaps indirectly, as we are led to believe from the resemblance of this ancient national fane of the Arabians to the Mosaic tabernacle, which was a repetition, in movable tents, of the Egyptian temple.* It is true that the only information we have concerning the primitive form of the Caaba is that it was a cubical cella, similar to the Holy of Holies of the Tabernacle of Moses and of the Temple of Solomon, and stood, like them, within an enclosed court. If the enclosure of the Caaba consisted of a covered colonnade with wooden supports and open towards the court, like that of the Mosque of Mohammed in Medina, it certainly must have resembled the peristyle boundaries of the Egyptian temple area even more closely than did the fence of poles and hangings surrounding the Mosaic tabernacle.

Whatever may have been the influence of Egypt upon the primitive civilization of Arabia, it is certain that the Moslems made no attempt to form their architecture after the models presented by the structures of the Pharaohs, as they had done after those of the Byzantines. The stupendous monuments which they saw upon the banks of the Nile were far removed from Mohammedan ideals. Their abhorrence of the idolatry of the ancient Egyptians must of itself have prevented them, even as it had the Christian builders of the first centuries, from attempting to imitate these works. The influence of the Egyptian temples was thus limited to the enclosure of the court, which was transformed from the simple wall surrounding the primitive Arabian fane to a monumental peristyle of considerable dimensions.

The colonnades surrounding the mosques were, in the earliest works of the Moslems, even in Egypt, formed almost exclusively of

* "History of Ancient Art," by Dr. Franz von Reber, p. 143, etc.

classic, and particularly Corinthian, columns, Byzantine types being rare. The shafts and capitals were frequently taken from Roman or early Christian buildings, or were directly imitated from such models. The classic entablature, on the contrary, never appears, having been given up almost entirely by the early Christian builders. The archivolts present from the first a novel appearance, being either pointed or horseshoe-shaped.

These forms of the arch, which are directly characteristic of Arabian architecture, did not originate in Egypt, nor do we find them among the decorative details brought by the Moslems from their Arabian home. Both are, however, to be traced, during the ages preceding the invasion of the Moslems, in the countries first occupied by them,—namely, in Mesopotamia and Persia: the pointed arch appearing in the Assyrian epoch, the horseshoe under the Sassanidæ. In the chapter treating of the art of the Sassanians the development of the horseshoe arch was described, and it was shown that this form was not determined by static considerations. The pointed arch was of greater constructive importance, but its employment by the Arabians was due less to a perception of the material advantages offered by it, than to a preference for lighter and more graceful proportions than those of the Byzantine round arch. The desire to decrease the weight of the wall may have somewhat favored the introduction of the pointed arch, but the consideration which chiefly led to its adoption was the greater height of opening afforded by it, and the consequent airiness and lightness of the structure. To this is to be added the preference of the adventurous and fanciful Moslems for uncommon forms, and perhaps for the similarity of the pointed and the horseshoe arch to the looped-up curtains or the round-cut openings of the tent. The combination of both varieties, the pointed horseshoe arch, which became common in later times, particularly resembles such hangings, as does also the Persian keel-shaped arch. The true importance of these forms was not yet understood, the consequential development of the pointed arch into the pointed vault being reserved for later times. In the architecture of the Moslems the archivolts were only employed to support a light ceiling of wood, upper stories not appearing at first in the more important edifices.

On the other hand, it was probably due to ancient Egyptian models, rather than to the traditions of Arabian design, that in Egypt the mosques were not placed in the exact centre of the square enclosure, as would seem the more natural arrangement. It was perhaps in imitation of the ancient Christian atrium that the middle of the court was chosen as the position of the fountain used for the ablutions prescribed by Mohammedan rites, while the covered space in which the worshippers assembled for prayer adjoined

one of the four sides of the enclosure (compare *Fig. 87*),—much in the same manner as the hypostyle hall was connected with the peristyle court of the Egyptian temple. But, in contrast to both the ancient Egyptian and early Christian courts, the side of the enclosure formed by the hall was not emphasized upon the interior façade. The ranges of columns were extended without alteration around all four sides of

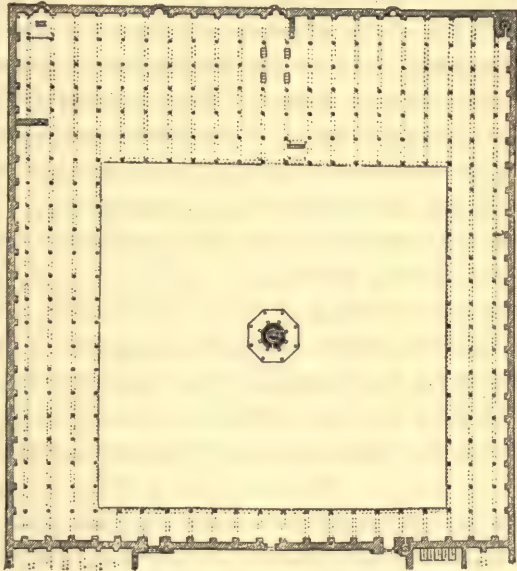


Fig. 87.—Plan of the Mosque of Amru, Cairo.

the court, which thus differed from the Christian atrium in not having the character of a vestibule. The area required for the hall, or mihrab, was provided in the simplest possible manner by multiplying the colonnades on the side of the court chosen for the purpose. It is to be observed that in these edifices the chief axis of the mihrab was never distinguished by greater dimensions, as was the clerestory of the Christian basilicas, or the middle aisle of increased height introduced into the hypostyle hall of the more important Egyptian temples, such, for instance, as that at Karnak. This is particularly remarkable, as the Moslems, who

worship with their faces towards Mecca, were even more strictly obliged than were the Pagans or the Christians to turn in a given direction while engaged in prayer, and as the orientation of sacred edifices to the cardinal points of the compass had been previously observed in almost all the temples and churches of the East. But the Arabians, while maintaining the general arrangement of their plan, paid little attention to the orientation of the entire building, indicating the direction in which the worshippers were to turn for prayer by the introduction of a special chapel (kiblah), which consequently stood in no organic connection with the main lines of the edifice, often adjoining some unimportant corner of the mihrab. The position of the pulpit (mimbar), the seat of the caliph or of his representative (maksura), and the tombs of the founders or patrons of the mosque, were similarly introduced without reference to the general plan. These points were frequently indicated upon the exterior by cupolas, generally of horse-shoe outline, which rose unsymmetrically above the flat ceiling of the colonnades, and being constructed of light carpentry did not generally require additional supports in the interior. The standpoint for the muezzin, who called the faithful to prayer, was provided by the tall minarets, which were nothing else than narrow spiral staircases enclosed by a wall and terminated by a small encircling gallery. The position of these towers was determined solely by topographical considerations and the desire to render the voice of the muezzin audible to the greatest possible number of the inhabitants. The outer walls of the older mosques were as bare as those of a fortress, their only ornamentation being the entrance portals; these were more frequently arranged in the corners than in the axes of the square court.

The structure was entirely without an organic architectural memberment; but this gave the greater scope to a graceful and fantastic ornamentation. As the Moslem carries his prayer-carpet with him to the mosque, even so did the Mohammedan artist cover the floors, the walls, and even the gratings of the windows, with patterns similar in character to those of tapestry. This style of decoration, which has with good reason been called arabesque, gives unity and a national character to an architectural framework bor-

rowed from various quarters. The arabesques are as unlimited and as continuous as the works of the weaver, hence they permit no projections of the wall and no architectural members similar to cornices. The walls most suitable for the Mohammedan decorator are uninterrupted like the floors; they are similarly treated, being covered with flat textile patterns and at most framed in by slight ornamental borders. In cases where the architectural structure rendered such a treatment impossible,—as in the case of spandrels or cupolas,—the ornamentation, while retaining the motives derived from embroidery and weaving, was transformed to a delicate relief, which in appearance holds a middle place between a fine fretwork and a drapery of lace. This, like the decorations of perfectly plain surfaces, was executed on a stucco revetment. The Arabian stalactite vault is a striking instance of the inability of Mohammedan architecture to develop an organic decoration from the constructive principles employed. The diminutive members of which they are composed repeat the same forms from the impost to the summit of the vault with the same multiplicity and ingenuity of arrangement observable in the surface ornamentation of the walls. These stalactites first appear upon the pendentives, and continue to be most frequently employed in that position. The constructive principle involved is that of the false vault, formed by repeated horizontal projections.

In these decorations the play of complicated designs and of bright colors is inimitable, the clear outlines of the flat stucco reliefs increasing the effects of light. The principle of this treatment of the wall is the same as that recognizable in antiquity among several Oriental races, notably among the Phrygians; but the taste and technical ability of the Arabians produced a result far superior to the textile works, and to the architectural ornamentations imitated therefrom, which are to be observed among any other people. This is explicable by the concentration of the artistic industry of the nation for centuries upon this one branch, the weaving and embroidering of tapestries being the only work that can be practised during continual journeyings, and consequently that which has always been the most natural to nomadic races. While the sheep, goats, and camels of the tribe provide the materials for this

manufacture, the occupation of weaving and embroidery is the greatest resource to the women while in the desert; moreover, both the tent and the naked earth upon which it stands require carpets and hangings in place of the wood and stone employed by the inhabitants of fixed abodes. The patterns of this textile work were transferred to the decoration of mural surfaces as soon as the movable tent of the desert was exchanged for settled dwellings and for monumental edifices.



Fig. 88.—Interior of the Mosque of Amru, in Cairo.

The Mosque of Amru, in Cairo (*Figs. 87 and 88*), founded in the year 643,—consequently only twenty-one years after the Hegira,—is the oldest known architectural creation of the Arabians beyond the limits of their native country. In it the arrangement before described appears fully determined. The building is nearly square, and presents upon the exterior an almost entirely bare wall. The colonnade on the side of the court towards the entrance is formed

by one range of columns, that at the right by three, at the left by four, while that on the side opposite the entrance, the mihrab, is extended to six ranges. All these columns appear to have been taken from Roman and Byzantine buildings. The majority of the capitals are of the Corinthian order. To equalize their height they are surmounted by piers of masonry, of the same plan as the abacus, which are connected with the neighboring supports by means of wooden beams. From these piers rise horseshoe arches somewhat pointed at the summit, the impost being marked by a very slight projection. Throughout the building the archivolts run in one direction; the horizontal ceiling of wood is placed upon them without the intervention of decorative members of any kind. The centre of the open court is occupied by a fountain, surrounded by eight columns which uphold an octagonal cupola. The remaining details seem to have conformed to the description given above, but few traces of the colored decoration of the walls are now recognizable.

The details of the Mosque of Ibn-Tulun in Cairo (*Fig. 89*), which was built in the year 879, have remained in a better state of preservation. Its arcades are fivefold in the mihrab and threefold upon the other sides of the court. The arches are supported upon piers, those standing at the corners being provided with peculiar engaged columns, the plan of which is three-quarters round. The archivolts are of horseshoe shape, slightly curved inward and sharply pointed at the summit; their soffits are richly decorated with arabesques, and the outer sides of the curves have fringe-like borders. The fountain, in the middle of the court, is erected upon a square foundation, the superstructure becoming octagonal by the chamfering of the corners, while the pointed cupola is of circular plan. The minaret, though but little ornamented, is of imposing proportions; it stands at one corner of the court, rising from a massive square base which is diminished in accordance with the ascending lines of the spiral staircase to an exceedingly tall and narrow tower.

The want of conformity between these two most ancient mosques of Cairo is very striking, and an arrangement of plan quite independent of previous designs of the class appears also in the

mosques of El-Daher and El-Azhar, dating to the tenth century, in that of El-Hakim, of the eleventh, and in the mosques of Barkuk and Salaheddin Yussuf, of the twelfth century. The later examples, although each offering new solutions of the architectural problem, do not display important constructive improvements, and no one form of columns or archivolts decidedly predominates. In the curves of the arches some Occidental reminiscences are occasionally recognizable, these having, without doubt, been introduced by the Crusaders. The most important monument erected in Egypt by



Fig. 89.—View of the Mosque of Ibn-Tulun, in Cairo.

the Arabs is certainly the Mosque of Hassan, A. D. 1356, in which the European influences are even more apparent than in the Mosque of Yussuf. The court, which in the earlier examples was so extensive, is here contracted to a small opening for admitting light, situated at the intersection of two main aisles. The transepts are covered with high barrel vaults of pointed profile, supported upon low walls, this construction being of a massive and heavy character which is not elsewhere met with in the works of Arabian architecture. The four quadrangular corner areas, outside of the

main aisles, are occupied by small chambers, so as to enclose the entire plan in an oblong,—this being as regular as the neighboring streets, which were not quite parallel, would permit. A square mausoleum, in which the founder of the mosque was buried, adjoined the complex. This structure was surmounted by an immense cupola, the pendentives of which are formed by stalactite vaults. The pointed dome was only provided with windows in the drum, being otherwise perfectly plain, like the vaults of the main aisles. If the dome had been placed above the intersection, so as to cover the court, instead of rising above a prolongation of one of the aisles, the plan would have presented a striking similarity to the edifices of the Romanic epoch, especially to those of South-western France, as well as to some of the structures of less architectural importance which had appeared among the Persians under the Sassanidæ. The double towers upon the main front, rising at either side of the mausoleum, also remind us of the Romanic bell-towers. On the other hand the magnificent portal, with its elaborate surface decoration derived from textile patterns, and with its projecting cornices, clearly displays the artistic traditions of Asia.

The Mosque of El-Moyed in Cairo, which was founded in the year 1415, is distinguished by a similar portal, and by an effective arrangement of different colored ashlar stones in horizontal courses. In this building recourse is again had to the original arrangement of an extensive court surrounded by colonnades. As the stock of antique columns was by this time not sufficient to supply the demand, a new kind of support was introduced, which, forming a compromise between the column and the shaft, is exceedingly awkward in appearance. Indeed the entire structure, notwithstanding the lavish gildings of its ceiling, is one of the most unsuccessful efforts of its time. On the other hand, the Mosque of Kait-Bey in Cairo, built about 1483, the exterior of which much resembles that of the Mosque of El-Moyed, is remarkable for a magnificent ornamentation of the most beautiful design, rendering this comparatively small building, both within and without, one of the gems of Mohammedan architecture in Egypt. (*Fig. 90.*) The minaret and the mausoleum of the founder, which stand in connection with the edifice, are of particularly graceful and pleasing forms.

There are but few remains of the domestic and civic architecture of the Mohammedans in Egypt which can with certainty be referred to the earliest epoch. But it may be assumed that the style employed in structures of this class, after having been once fully developed, was but little altered during later centuries,—so that the general character of the dwellings and public buildings of the first centuries after the occupation may perhaps be understood from a study of the examples of this kind still erected in the country by the Mohammedans. The exterior of the private house is plain and uninviting. The portal is in some cases richly decorated, but is always calculated to offer resistance to forcible intrusion. In the lower story the windows are small and irregularly disposed, but above this they are wide and airy, being supplied with a projecting lattice-work, which takes the place of the Italian balconies, and the oriel windows of the north. The dwelling-rooms do not open towards the narrow street, but towards a large inner court, which is rendered extremely picturesque

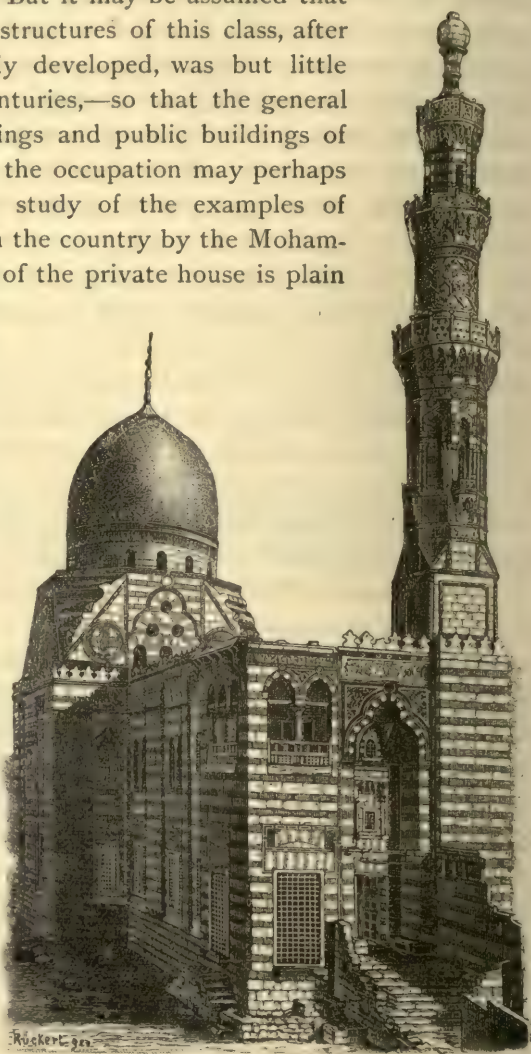


Fig. 90.—View of the Mosque of Kait-Bey in Cairo.

by colonnades and fantastic arcades, by pavements of colored marbles or of glazed tiles, by fountains and by the woven hangings of

the doors and windows. A dais of masonry takes the place of furniture in the sleeping and living rooms. The proportions of the plan and elevations and the treatment of the ceilings give to all these spaces, and particularly to the baths, a most pleasing effect, which is heightened by an elaborate polychromatic decoration.

The Arabians have always retained a peculiar veneration for water. Even in private houses the surroundings of this life-giving element are pre-eminently adorned, while the decorations of the public fountains are often magnificent. This is the case, for instance, with the fountain known as that of Abderrahman, and with that near Souq el Asr, both in Cairo. Among the other public buildings which present the opportunity for monumental treatment, the khans and caravansaries are deserving of mention, although they seldom attain to an artistic importance.

We are not able to say in what measure these peculiarities, developed upon Egyptian soil, were derived from the Arabian root, inasmuch as all the earlier Mohammedan remains of Bagdad, the more ancient seat of the caliphs, were destroyed entirely during the plundering of this city by the Mongolians, between the years 1220 and 1405. This loss is the more to be regretted as Persia, the first country conquered by the Arabians, must have been the scene of the earliest development of Mohammedan art,—and as Bagdad itself, which was so long the chief centre of Islamism, must have exercised a decisive influence upon all the other countries occupied by the faithful. We cannot pronounce the name of Haroun al Raschid, the great contemporary of Charlemagne, without bringing up the vision of a culture more brilliant and more magnificent than that of any contemporary power. The fame of the newly arisen architecture of Bagdad penetrated even beyond Mohammedan lands: Theophilus, emperor of Byzantium, A.D. 829 to 842, built his summer palace in imitation of a structure standing on the banks of the Tigris. It is to be assumed that ancient Persian, Sassanian, and northern Indian influences determined the style which appeared in the empire of the older caliphs. But it remains to be seen whether historical and archæological investigations concerning the few remains referable to the first Mohammedan occupation of Persia will clearly display this development.

The architectural activity of Mohammedan Asia was removed, rather than diminished, when, towards the end of the ninth century, the power of Bagdad began to decline. The emancipation of Egypt on the one side, and of Bokhara on the other, which took place during the reign of Al Motamed, A.D. 870 to 891, did not materially affect the national civilization. The Samanian caliphate of Shiraz was maintained but little more than a century, from A.D. 932 to 1056, and, on the west of the Indus, the dynasty of the Ghaznavides, founded by Sabuktagin, was of not much longer duration, the flourishing city of Ghazni having been destroyed in the year 1183. An extensive and most fertile field was opened to Mohammedan civilization when the troops of Shahab-ud-Din, of the race of Ghori, invaded India in the year 1190, the entire peninsula being subjugated by the founders of the Turkoman dynasty of Pathan within half a century after the capture of Delhi and Canouge, in A.D. 1193 and 1194.

The buildings of Ghazni referable to the caliph Mahmud, A.D. 977 to 1030, were more closely related to the contemporaneous mosques of Cairo than to the Buddhist and Jaina temples of India, but in the heart of India the native models were almost directly imitated by the Moslem invaders during the first centuries. The extreme variety of ancient Indian architecture resulted in the appearance of a great number of corresponding Mohammedan styles; Fergusson enumerates not less than thirteen of these, some of which existed at the same time, in various districts of the country, while others succeeded one another from age to age. The original Indian forms, particularly of columns and piers, and their ornamental details, appear in almost all these styles, while the arrangement of the plan was more peculiarly Arabian.

The dynasty of Pathan at once began to build, with all that architectural ability and delight in monumental creations which have always been characteristic of the Turanian races, and with a talent for arrangement far superior to that of the Hindoos. All decorative details were, however, still left in the trained hands of the subjugated Indians, the patterns being directly copied from the structures of the Buddhists, and especially of the Jains, in the same way as the architects of the early Christian basilicas imitated the details of

ancient Roman monuments. The oldest mosque in India, that of Kutub at Old Delhi, A. D. 1196 to 1235, has columns of the same kind as those of the Jaina temple Vimala Sah in Mount Abu. The interior of the Mosque of Canouge, which was originally a temple of the Jains, displays none of the characteristics of Mohammedan design, although the plan has been transformed to an arrangement resembling that of the Mosque of Amru in Cairo. Reminiscences of the Indian styles appear also in the later Mosque of Dhar, near Mandu, in that of the fort at Jaunpore, and in some mosques at Ahmedabad and elsewhere.

One of the most striking peculiarities of these edifices is the great lack of constructive ability displayed in the arches, notwithstanding the preference for pointed and keel-shaped portals and cupolas. The keel-shaped arches on the western side of the Mosque of Kutub, as well as the few cupolas of this building, are either formed entirely

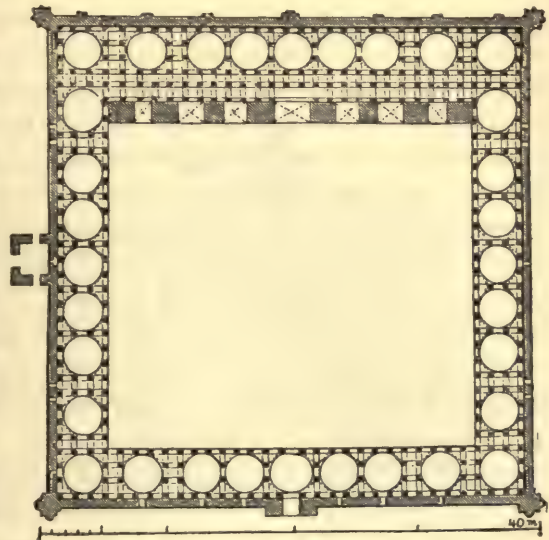


Fig. 91.—Plan of the Mosque of Ajmir.

by horizontal courses of projecting stones, or are partly built in this manner, and terminated by blocks of stone leaned together. Another example of the application of this principle of the false arch is noticeable in the keel-shaped archivolts of the Mosque of Ajmir, built between A. D. 1200 and 1230. The structure enclosing the court of this building, formed by a great number of columns, is surmounted by no less than thirty-two monolithic cupolas (*Fig. 91*). The shafts, which are placed at a right angle, support a slab lying in the diagonal, so as to transform the plan to an octa-

gon, which readily served as the impost of the small circular vault. This arrangement was imitated from the Jains, and was long retained by the Mohammedan architects of India. These two mosques, decorated in the Jaina style, are among the most elaborate examples of their kind; in constructive respects, however, they are not important. The curious Indian minarets of the earlier epoch appear rather as memorial columns, after the manner of the Lat monuments, than as the towers of mosques intended solely to provide a standpoint for the muezzin. A striking instance of the slight constructive significance of these towers is given by the celebrated minaret of the Mosque of Kutub at Delhi; rising from a circular plan of 15.5 m. lower diameter, and stepped five times in regular diminution, it attains to a total height of seventy-three metres. The five galleries, supported upon cornices formed by the projection of the horizontal courses, are as insignificant in design as are the channelings and reedings of the three lower divisions, which cause them to appear like a bundle of shafts and pilasters. A higher importance is to be attached to the ingenious attempts to effect the transition from a square substructure to an octagon, and to a circular impost for a cupola, by means of pointed-arched pendentives, projecting one above the other, as they appear in two vaulted edifices near the Mosque of Kutub at Delhi, namely, the mausoleums of Altumsh, A.D. 1235, and of Ala Ud-din Khilji, A.D. 1310. The method of forming pendentives by means of small pointed arches which, proceeding from the angles of the square, increase in number, row by row, as they ascend, is not known to have been introduced into any structure more ancient than a mosque of Delhi dating to the fourteenth century. In principle these pendentives were related to the stalactite vaults of Egypt and of Spain.

Little by little the Mohammedans of India emancipated themselves from the soft and luxurious influences of the Hindoos,—the architectural works of the stern Tugluck Shah, the founder of New Delhi, being a most important step in this direction. Jaina columns and piers were still employed in the new style, but its chief characteristics are extreme simplicity of decoration and the introduction of more thorough and monumental constructive methods. The Mosque of Jaunpore, where Khoja Jehan declared his indepen-

dence in the year 1397; that of Ahmedabad, founded by Ahmed Shah in 1411; that of Kalburgah, built between 1347 and 1435; and of Mandu, as well as the enormous mausoleums at Butwa, display more and more important dimensions, while discarding the elaborate decorations derived from the native inhabitants. An importance rarely met with in the West is assigned to the kiblah, by means of superimposed colonnades and extensive symmetrical halls covered by cupolas, the effect of the structure being heightened by the omission of the court upon the entrance side. In some instances

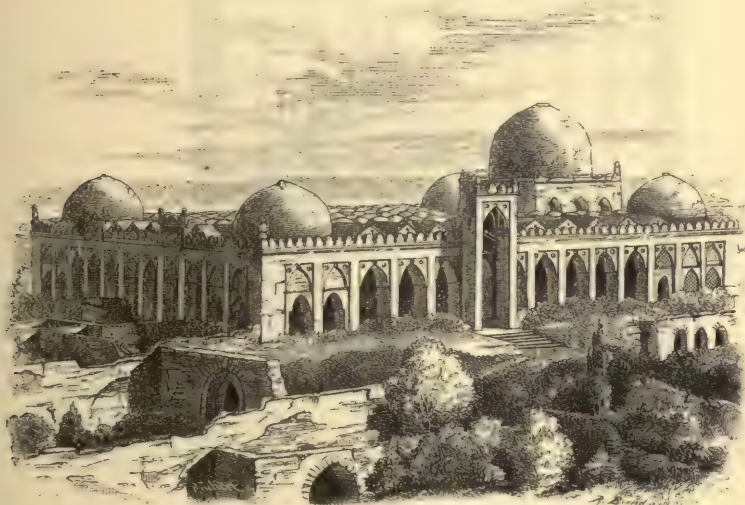


Fig. 92.—Mosque of Kalburgah.

the entire court is replaced by a great number of small domes, as is the case in the Mosque of Kalburgah (*Fig. 92*), the interior of which is provided with a hundred supports and covered by seventy-six cupolas. In architectural respects the greatest importance is to be attached to the elaborate and tasteful arrangement of the pendentives of the chief domes, which, however, did not appear before the sixteenth century. The pendentives of the Mosque of Jumma (*Figs. 93 and 94*), and of the grave of Mahmud at Bijapur, are constructed upon a most ingenious principle, and are particularly interesting, inasmuch as their design is without doubt related to the round-arched

squinch pendentives of Russia. But these edifices belong to a later period than that with which we are at present concerned, as do also the marvellous constructions of the empire of the Great Mogul, which was founded in the year 1494 by Baber, a lineal descendant of Tamerlane. The buildings at Gualior, New Delhi (Jehan-Abad), Futtehpore Sikri, Allahabad, Secundra, Mehal, Agra, etc., are all subsequent to the Middle Ages, some of them being as recent as the

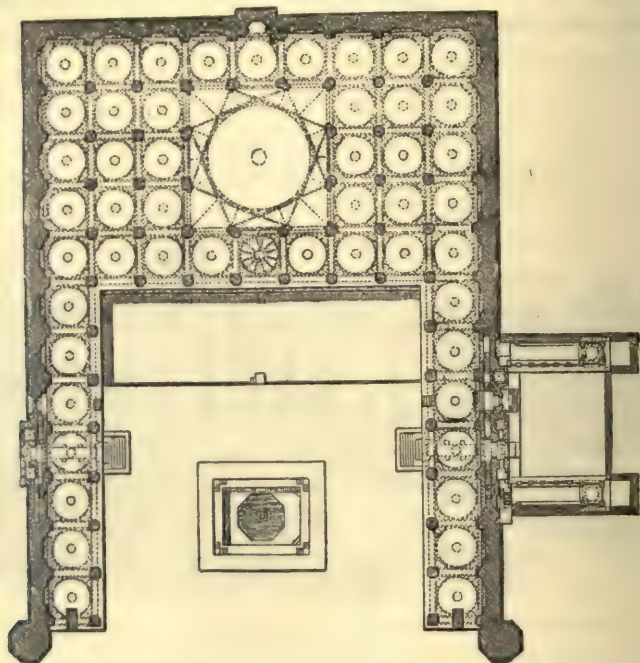


Fig. 93.—Plan of the Mosque of Jumma at Bijapur.

eighteenth century. The dynasty of Pathan has been celebrated for having "built like giants and decorated like jewellers." This might be said with equal truth of the Great Moguls, who erected, at New Delhi and at Agra, mosques, palaces, and mausoleums of the most imposing dimensions, all of which combined a harmonious arrangement of plan and an intelligent construction with a fine elaboration of the decorative details not even surpassed by the works of the Moors in Spain. The influence of the architecture of the Moguls,

after the sixteenth century, upon that of all Mohammedan Asia, and even that of Russia and Turkey in Europe, was quite as great as the influence of the traditions of Byzantium had been upon the beginnings of Mohammedan art. On the other hand, the powerful dynasty of Akbar the Great, who died in the year 1605, fully profited by the advances of Occidental civilization.

The most western districts of the world known to the ancients had been subjugated by the followers of the prophet even before Mohammedanism had reached its eastern limits, the banks of the Ganges and the Brahmaputra. The western movement did not proceed by the

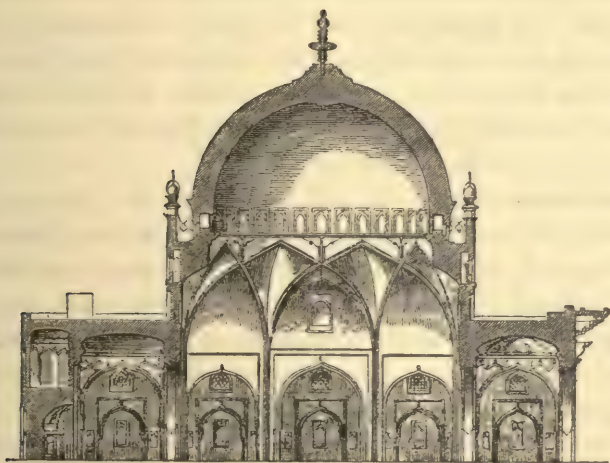


Fig. 94.—Plan and Section of the chief Cupola of the Mosque of Jumma, at Bijapur.

most natural and easy channel, the Mediterranean Sea, which had been so frequented by the Phœnician and Greek colonists and merchants, and was, indeed, the centre of this antique civilized world. It was perhaps fortunate for Europe that the people of the desert long remained incapable of sea voyages of such great length. They chose the route through the Sahara, whose arid wastes were familiar to the Bedouins, subjugating one by one the ancient settlements of Northern Africa. The city of Kairvan, near Tunis, was the most important creation of the conquerors during the seventh century, soon after the end of which they had reached the Strait of Gibraltar. But few decades later they occupied the most flourishing provinces of Spain.

Abderrahman, of the house of Moavia, previously tributary to the Abassides, established in Spain an independent kingdom, with Cordova as its capital, which realm was nearly equal in importance to that of the Caliph Haroun al Raschid, and was destined to flourish for a longer period than the Mesopotamian empire. The Christian churches were at first employed as mosques, the Christians being permitted, with the same toleration as in Damascus, to practise their rites side by side with the Mohammedans. But an independent architectural activity soon made itself felt, and gave to Cordova an importance equal to that of Bagdad, Cairo, or Delhi. As, in the architecture of the latter cities, the influence of the monuments of the Persians, the Byzantines, and the Jainas was plainly recognizable, so also, in the constructions of the Moors in Spain, the columnar details of the Roman and the early Christian structures were combined with the traditions brought from Egypt, the arches being almost always of the horseshoe form.

Abderrahman himself did not live to see the fulfilment of his proud desire to erect a mosque which should surpass those of Damascus, Bagdad, and Jerusalem. It was only after a period of construction extending over more than two hundred years, from 785 to 1000, that the Mosque of Cordova attained to its unequalled dimensions and magnificence. The arrangement of the Arabian court made it possible to extend the plan by various additions, until the area occupied was four times as large as that originally projected. Three distinct extensions are recognizable. At first that part of the building which served as the mihrab was enlarged upon the southern side by colonnades, and terminated by an imposing row of chapels. Subsequent to this, eight additional aisles were added upon the east, the court being proportionately increased in width. And finally, the court itself, by the introduction of a forest of columns, was transformed into a covered hall, this being provided, in its turn, with a new and more extensive court upon the north, the plan thus occupying an enormous rectangle, 180 m. long and 136 m. broad (*Fig. 95*).

By these alterations the position of the longitudinal axis of the building was changed, so that the chief hall was no longer in the centre of the entire structure. In most of the monuments of Mo-

hammedan architecture this would not have been felt as a disadvantage: even in the Egyptian models a symmetrical disposition was never strictly observed, and, as the position of the kiblah was only determined by the direction towards Mecca, it seldom stood in any connection with the main lines of the enclosure. In the case of Cordova, however, the main axis was more emphasized than it had been in the Egyptian prototypes, inasmuch as the central aisle, which was, moreover, somewhat broader than the others, led directly



Fig. 95.—Plan of the Mosque of Cordova.

to the kiblah,—a structure surrounded upon either side by a number of chapels of symmetrical arrangement. Upon the exterior this want of symmetry was little to be remarked, as the enclosing walls, which were as thick as those of a fortress, were only divided by buttresses of various dimensions placed at unequal intervals, and by a number of horseshoe-arched portals and windows, arranged solely with reference to convenience of access and of illumination.

The court, occupying less than one-third of the entire extent of the building, is surrounded upon three sides by a simple colonnade,

the supports of which are coupled at irregular intervals, quite without reference to the position of the entrances. On the side of the mihrab heavy piers connected by pointed arches form the portals which give access to the nineteen aisles of the hall. The mihrab covers an area of 16,000 sq. m. The roof of this enormous space was originally supported by more than a thousand columns, eight hundred and fifty of which still remain (*Fig. 96*). Their shafts



Fig. 96.—View of the Interior of the Mosque of Cordova.

are of gray and red granite, jasper and white marble, brought from all the quarries of Spain and of the neighboring countries. The bases were either omitted altogether, or have been hidden by the pavement, which is now relaid upon a higher level. The capitals are almost all of the Corinthian order, and are of very similar design. It is probable that only those in the western part of the building are of antique or early Christian origin, the others being rough imitations, executed at the time when the mosque was erected.

The projecting members above the capitals are similar to the corresponding details of the early Christian columnar construction; they serve as an impost for the lower horseshoe arches, which act as braces between the short piers above them, these latter uprights bearing the semicircular archivolts. An open roof of carpentry, sheathed with lead, originally rested upon the summits of the archivolts, nineteen ridges corresponding to the aisles of the interior, so that the gutters ran directly above the ranges of columns. This roof was replaced in 1715 by light vaults. The direction towards the kiblah is distinguished by ornamentations upon the piers above the columns and by patterns upon the upper arches. The chapels on the southern side are richly and tastefully decorated, the more recent *ædícula*, known as the *Villa Viciosa*, which stands in the middle of the hall, being especially elaborate. A magic charm is given to the endless vista of columns and double arches by the ingenious construction of the ceiling, by the intersecting lines of the arches, which seem like a translation into curves of the straight lines of the basilica roof framing, by the magnificent mosaics upon gold ground (*fesifsa*), and by the rich decorations of arabesques and written characters. Nevertheless, it is impossible to overlook the organic faults of the structure, such as the unnecessary duplication of the arches, the restlessness of the many openings and cross lines, the disproportion of the height of the columns to the arcades which were piled above them, and the lack of a central and dominating nave. The effect of the late Gothic cathedral choir which has been added to the structure is not pleasing, and it is perhaps fortunate that it cannot be seen from the entrance, it being impossible to see through the forest of columns in a diagonal direction.

The first architectural style of the Moors, the main characteristics of which were a combination of Corinthian columns with horseshoe arches, and with a comparatively restricted ornamentation, appears in several other Spanish towns as well as in Cordova. One of the more important instances is the small mosque or synagogue at Toledo, now known as the Church of Cristo de la Luz. It is a square structure, surmounted by nine cupolas, which are supported by four columns, connected with each other and with the outer walls by horseshoe arches. The elaborate chapels in the Mosque of Cor-

dova exhibit a further development of the Moorish style, resulting from the introduction of Byzantine decorations in mosaics and marble revetments. The magnificent palace of Az Zahra, near Cordova, built by the splendor-loving Abderrahman III., A. D. 912 to 961, is an example of this second and more ornate style; unfortunately, it was almost entirely destroyed in 1008 by an inroad of the Moors of Morocco. The account of the four thousand three hundred columns of this edifice, which were said to have been brought not only from the quarries of Spain and of Northern Africa, but even from Rome and the Byzantine empire, may be an exaggeration; still, the descriptions of the edifice leave no doubt that it must have resembled the Villa Viciosa of the Mosque of Cordova, and consequently have displayed the influence of Byzantine decorations.

The Moors of Morocco, of the dynasty of the Almoravides, under Yussuf ben Teshfin, whom the Spanish Arabs had summoned to their aid against the Christians in the year 1086, soon turned their arms against their confederates. This second invasion from Africa furthered a change of Moslem culture in Spain, which appears to have been begun in Granada a century previous by the founder of the dynasty of Sahandja, Zavi, a chief of Barbary. The art of Byzantium was entirely subordinated to that of Africa and of Egypt. The civilization of the Phœnicians, which two thousand years before had preceded the influence of Rome in Spain, had been introduced by the way of Carthage. In like manner this last invasion of the Moors advanced from Morocco in support of the Mohammedans of Cordova, who without their advent might never have recovered their independence from Byzantine traditions. The culture of Roman antiquity was thus preceded, and in its turn displaced, by invaders from the coast of Africa. The low and rather heavy proportions of the earlier architecture of Cordova were exchanged for the more graceful forms of the Orient; the round horseshoe was replaced by the pointed arch; and that style particularly designated as the Moorish, which reached its culmination in the Alhambra, was introduced into Spain. Unfortunately, the Mosque of Seville, founded A. D. 1172, which was one of the grandest creations of all Mohammedan art, has been preserved to us only in small part. Still, the distinguishing traits of this new style are clearly apparent in the gigantic

minaret, built in 1195, which now serves as the belfry of the cathedral, being known as the Giralda, from the figure of the vane surmounting the renaissance superstructure (*Fig. 97*). The windows and arcades in relief, as well as the decoration of the surfaces, display that delicate elaboration which may aptly be compared to lace or filigree-work, and which is characteristic of all the monuments of Moorish architecture subsequent to this period. The horseshoe form has given way to the pointed and, at times, keel-shaped arch, the small columns are sligher, and show the first attempts to develop an original capital. All the details point to a new influence, derived from Morocco, and it is to be remarked that towers of this description are elsewhere met with only on the coast of Africa opposite Spain.

The Alcazar, or Palace of Seville (*Figs. 85 and 98*), built for the greater part about the same time as the Mosque and the Giralda, was one of the most important creations of the Moors. Little now remains, however, of the original structure dating to the twelfth century. The building was altered and extended, by Moorish architects and in the Moorish style, even after the conquest of Seville by the Christians, A. D. 1353 to 1364. These additions naturally display a secondary style which was largely dependent upon that of the Alhambra. Other parts of the building, erected in the sixteenth century by order of the Emperor Charles V., chief among which is the

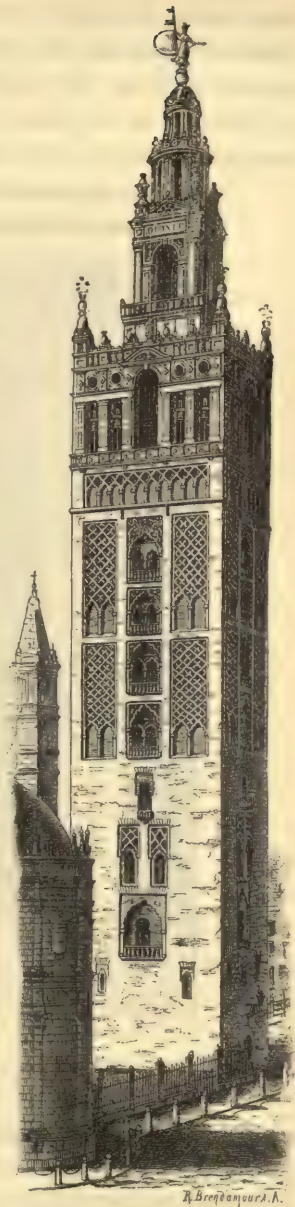


Fig. 97.—The Giralda of the Cathedral of Seville.

Patio de las Doncellas, are distinguished by the introduction of renaissance columns and details from the works of the fourteenth century, such as the Salon de Embajadores. The occupation of the building as a palace until the present day has led to so many restorations that it is now impossible to attain a clear understanding

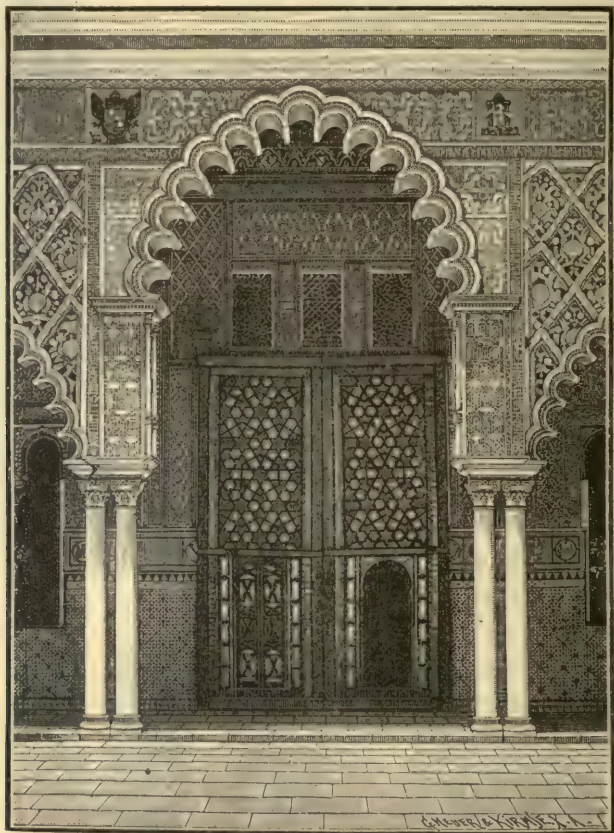


Fig. 98.—Arcade of the Alcazar in Seville.

of its original arrangement. The same is the case with the so-called Casa de Pilatos in Seville.

Granada did not become important in artistic respects until Cordova and Seville had been recovered by the Christians. When the city attained to an independent position under Ibn-ul Ahmar, about the year 1240, it became the centre of Moorish science and art, as

well as the seat of a court famed alike for intellectual culture and knightly prowess. The natural surroundings of the city seemed to favor this romantic character. The landscape is strikingly picturesque and beautiful: the luxuriant Vega and the valleys of the Xenil and the Darro forming a wonderful contrast to the snow-covered peaks which border the horizon.

The lower classes as well as the cavaliers among the Moors delighted in a careful construction and elaborate embellishment of their dwellings. Moved by a like impulse, the kings of Granada built a most magnificent and attractive palace within the fortifications of the Alhambra,—a citadel so called because of the “red” color of its walls. The greater part of the structure dating from the fourteenth century, erected by Mohammed III. and Mohammed V., is still standing. The harem, the buildings for the dependents, and the large enclosure with the chief portals leading to the Court of the Myrtles and the Court of the Lions, have made way for an uninteresting renaissance structure built by Charles V. It may be assumed, however, that the main front of this enclosure was built, after the manner of the Alcazar in Seville (*Fig. 85*), with a monumental gateway above the entrance.

In no other work of the Moslems has their peculiar architectural style attained to an expression at once so independent and so organic as in this comparatively recent creation; nowhere has it developed a nobler and more graceful beauty. Arabian art, after a long subordination to Occidental and Byzantine culture, returned in the Alhambra to its true and native character. The tent of the sheik was translated into a grand and permanent monument, which retained even the lightness and grace of the slender poles and the richness in color and design of the tapestried hangings. The magic charm of Arabian fancy was not lessened by this transformation, the permanence of the construction of masonry rather adding the repose of the oasis. Marble, wood, glazed tiles, and colored stucco repeat the patterns of those textile works which had been familiar to the Moslems from the earliest times. These had lost nothing of their beauty in the wanderings along the Sahara; on the contrary, they had been carried to a still higher degree of perfection in the great African waste, and were revived upon the banks of the Guadalquivir

in remembrance of the desert home, and the long caravan journeys thence, with all the poetic imagery of nomadic life. As blossoms appear upon the outermost branches of a tree, so the highest development of Arabian culture was reached in the most remote country to which it had extended.

Instead of the heavy imitations of Corinthian or Byzantine columns which had been customary in the earlier Moorish style, there appear in the Alhambra slender shafts, similar to those reproductions of Egyptian columnar motives which the Israelites had employed for the poles of their tabernacle of movable tents in the Arabian desert. The bases are composed of the usual classic forms,



Fig. 99.—Capitals from the Alhambra.

often with the addition of high mouldings encircled by small roundels, evidently imitated from the original socket of turned metal which served as the support of the wooden upright. The shafts are but slightly diminished, never channelled, but at times ornamented with patterns of lines. Their upper end displays turned amulets and incisions, which somewhat resemble the cords of the Egyptian hypotrachelion, binding together the bundle of floral shafts, but should rather be considered as reminiscences of the fastenings of the original tent poles. The capitals (*Fig. 99*) consist of a tall neck-
ing ornament with a row of leaves, or with a pattern of woven ribbons, upon which rests, in the place of an echinus, a cube decorated in relief with the conventionalized foliage of textile design, or, in

exceptional cases, with diminutive stalactite projections. It is terminated by a bold abacus of hollow curved profile, above which is placed the impost block. A strong trunnel projected from this latter member and was dowelled into a horizontal beam of wood which served as an epistyle, but was sculptured like a frieze. The framework thus formed was of the simplest and slightest possible kind, only the semblance of an arcade remaining. The arches are of no constructive significance whatever, being formed merely of stucco facings supported by the horizontal beam, having in the intercolumniation a hollow space between the outer and inner surfaces. In some instances they are even perforated with fretwork decorations, so that it is possible to look quite through the wall, as through the tracery of a Gothic gablet.

The slender columns, the wooden framework by which they are connected, and the revetment of stucco with which this latter is covered, are all of so perishable a nature that it is a matter of surprise that such a structure should have lasted for more than five centuries, even under the most favorable conditions. Indeed it may be observed, from certain inequalities of the decorative panels, that the columns in several instances shifted from their position even during the progress of the building. It was evidently not the intention of the architects to insure to the royal palace a stability equal to that of the massive fortifications of the Alhambra, which are formed of stone and brick masonry cast in cement. They desired rather to attain the light and festive character of a temporary pavilion, and hence avoided all true arches and vaults, and even massive walls, whenever this was possible. Vertical and horizontal memberments were formed merely by borders of slight projection, while the archivolts were cut out, so as to resemble the fringes of curtains,—entirely losing the character of a solid construction of vousoirs. Still, the conventionalized treatment of the surfaces in a slight relief of stucco is so wonderfully beautiful that these technical defects are readily overlooked. The most varied patterns, derived from works of embroidery and weaving, for which the Moors were celebrated until the end of the Middle Ages, are combined with a taste and an ingenuity never since equalled (*Figs. 100 and 101*).

This decorative system forms the greatest possible contrast to that of the Occident, which was developed upon antique forms. Nevertheless the later art of the Spanish Moslems retained many details which had been introduced in the works of intarsia and mosaics, executed by Byzantine artists for the Moorish court. The similarity of the arabesques to Celtic ornaments is more apparent than real, the straight and curved lined figures of the former being as directly derived from weaving and embroidery as were the inter-

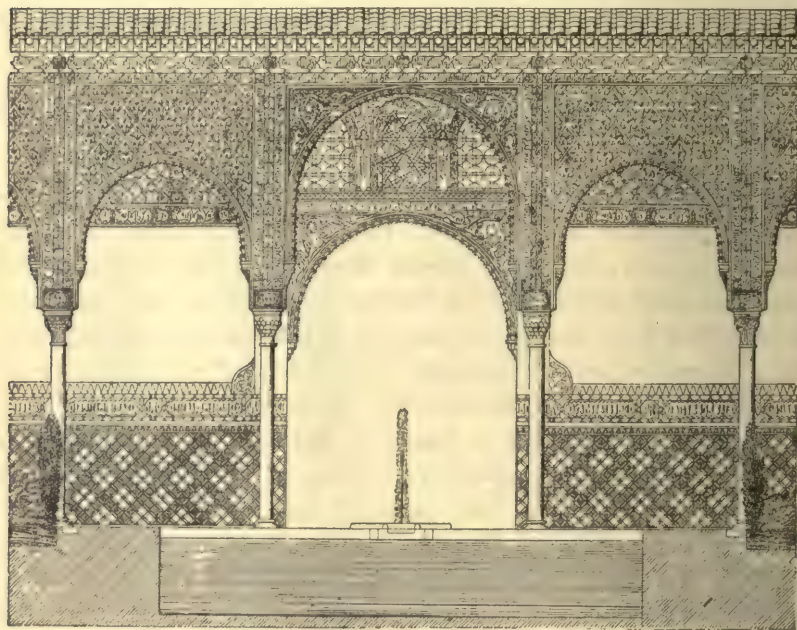


Fig. 100.—Part of the Court of the Myrtles in the Alhambra.

twined patterns of the latter from braided work. The plant-forms of Moorish decorations are rather a kaleidoscopic arrangement of conventionalized leaves than a systematic imitation of natural models. They resemble in many ways the elaborate floral ornaments of India. This similarity, which is quite as recognizable in the monuments of Egypt as in those of Spain, is undoubtedly referable to a most ancient intercourse between the inhabitants of both sides of the Persian Gulf. The relations between India and Persia were inti-

mate, and there is good reason to suppose that the primitive art of Arabia was influenced by that of India.

The ceilings of the Alhambra are not of greater constructive significance than are the supporting members. The structural character is everywhere contradicted or masked. The columns appear as weak poles, the walls as tapestries, the arches as fringed curtains, and in like manner the architectural system of roof and ceiling does

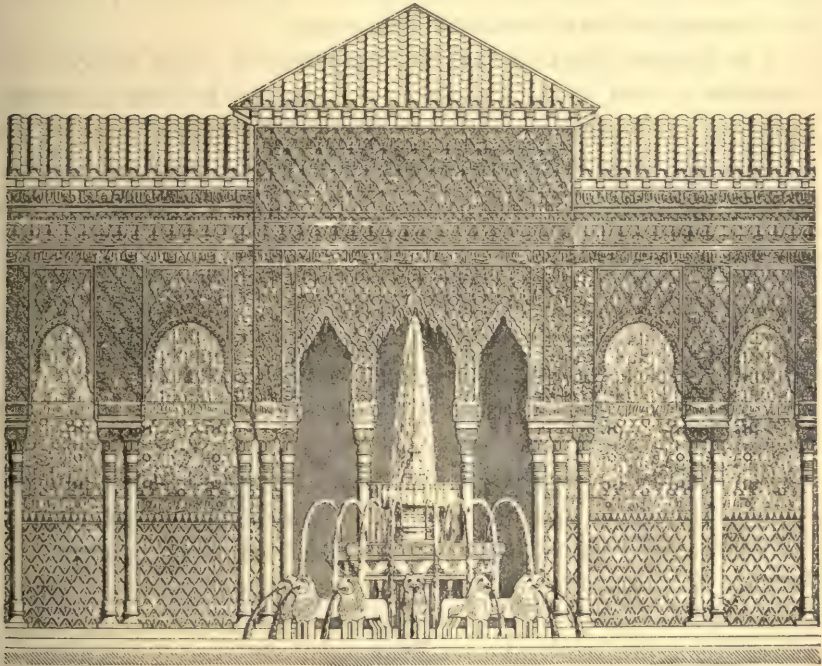


Fig. 101.—The Court of the Lions in the Alhambra.

not express their true functions. The epistyle beams, it is true, support the horizontal ceiling-timbers and the inclined rafters, but both are hidden upon the exterior by a revetment of boards which stands in no organic connection whatever with the true construction. The ceilings are panelled in slight relief, and covered, without reference to the arrangement of the beams, with an intricate network of delicate mouldings, such as appears also upon the surfaces of the walls and doors. Even the cupolas are without construct-

ive importance. Their stalactites are either affixed directly to the framework of the pyramidal roofing, as in the Hall of the Two Sisters and of the Abencerages, or the stone is hidden by a multitude of panellings and projections, as in the Hall of the Ambassadors. The system of small pendentive arches which appeared so clearly in the architecture of India, and served as the basis of the stalactites, is almost entirely lost in a maze of hanging forms, so planned as to afford striking effects of light and color rather than to display the character of the constructive framework.

The general effect of the Alhambra may in some respects be compared to that of the dwellings of Pompeii. In both cases the endeavor was to lighten all the architectural members as much as possible; in both the forms were treated in a playful and whimsical manner. In Pompeii the decorations of the walls are fanciful and diverting, their constructive impossibility expanding the narrow walls of the dwelling, and transporting the occupant to a fascinating dream-world. In Granada the light structure and the luxuriant decorations were even more calculated to make the inhabitants forget the prison-like walls of the citadel, and carry the imagination to the splendid tent of a Bedouin chief in some charming oasis,—the ideal of Arabic poetry. The Alhambra was created for the knightly courtesy of the Moors, for the magnificence of Oriental silks, the luxury of jewels and arms, for the enjoyment of the dance and song accompanied by lutes, and for the voluptuous delights of love in the groves of cypresses, myrtles, and oranges, in the courts, the baths, and the chambers. The edifice was an architectural lyric: a harmonious embodiment of Arabian idyls. Its halls, often entirely without windows, were not calculated to be seen by the glare of day,—less favorable even to the courts than the silvery light of the moon,—but rather by the dim illumination of colored lamps, which enhanced, as if by magic, the fantastic elaboration of the walls and stalactite vaults. But as the murmuring of fountains, the odor of flowers, and the songs of nightingales did not prevent the viper from entering the gardens of this terrestrial paradise, so also the caresses of love and the poetry of this enchanted life could not exclude calumny and intrigue, or hinder the silent work of the damaskeened dagger. In the courts of

the Alhambra, perhaps more than elsewhere, love and enjoyment cast their almost inevitable shadows of hate and crime. The Hall of the Abencerages still preserves the memory of that celebrated family which fell within its walls as victims to the hatred of Abul Hassan.

Almost opposite to the Alhambra, upon another height of the hills which surround Granada, are the remains of the pleasure palace of Jennas Al Arif (Garden of the Builder), now known as the Generalife. The arrangement of plan is here much the same. As the structure was not enclosed by fortifications, the gardens and pleasure-grounds were more extended, their clear brooks and pure air, hedges of roses and beds of perfumed flowers, being celebrated by Moorish writers. The present condition of the Generalife is not to be compared with that of the Alhambra. Various remains still preserved in the city of Granada are of the same architectural character, the forms of the Alhambra being as predominant in this part of Southern Spain as the older style of the Mosque of Cordova is in the country between that city and Toledo.

A style similar to that which had developed in Andalusia, after the erection of the Mosque of Seville, under the dynasties of the Almoravides and Almohades, and especially of the Nassrides of Granada, naturally appeared on the coasts of the Mediterranean opposite to Spain. In Africa, however, the decorations of the walls are much simpler, being frequently limited to a revetment of colored tiles. We are informed by mediæval writers that Andalusian architects were employed in Morocco and Tunis. This, even were it true to a greater extent than we are obliged to assume, does not alter the fact that the brilliant creations of the Moors of Granada were entirely due to African genius. For while the elements of the architecture of Seville and Granada can be traced along the southern shores of the Mediterranean to Cairo, and perhaps even beyond, to the deserts of Arabia, they are so totally distinct from the older works of the Mohammedans in Spain that it is impossible to assume them to have been developed from the style of Abderrahman. The peculiar forms of the Alhambra could only have originated in the neighborhood of the desert, in such surroundings as those provided by the northern coast of Africa.

Sicily was early brought under the sway of the Moslems by invasions from Kairvan, the oldest centre of Mohammedanism in Africa. The island was conquered between the years 802 and 878, and, by the wisdom and energy of the princes resident in Palermo, became, during the following century, the seat of a culture such as had previously existed only during the ages of Hellenic colonization. This flourishing period was not of long duration, for dissensions among the conquerors led to the interference of the Byzantines of Apulia and of their adventurous Norman confederates, the latter soon expelling both the Byzantines and the Arabs.

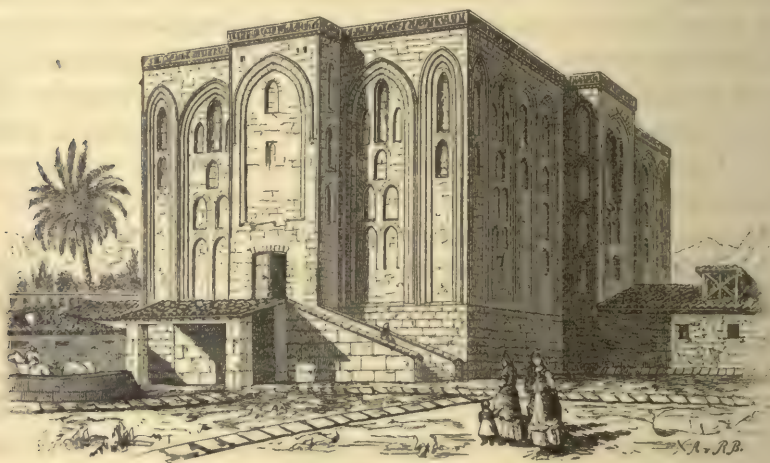


Fig. 102.—The Kuba near Palermo.

Roger, brother of King Robert Guiscard of Naples, became master of the entire island in the year 1090. The Norman rulers did not consider it in their interest to overthrow the Arabian civilization, which was, on the contrary, protected both by them and by their successors of the Hohenstaufen dynasty. Their architectural works can thus be regarded in some degree as a substitute for those of the Mohammedan epoch which have been destroyed.

The palaces of Favara, Zisa, and Kuba, near Palermo, were all built towards the end of the twelfth century: the Zisa, or Al Azisa (*i.e.*, the Magnificent), before 1166, by William I.; the Kuba (*i.e.*, Cupola), in 1182, by King William II. (*Fig.* 102). These structures

are evidently not restorations of earlier Arabian edifices. They differ decidedly, both in plan and construction, from the works of the Moors in Spain and Africa, displaying Northern reminiscences which must have been introduced by the Norman rulers, notwithstanding the employment of Mohammedan architects and masons. In general appearance these palaces resemble the compact masses of the older baronial castles of England. They contain a central hall terminated by a cupola or cross-vault, and surrounded by smaller chambers, which are arranged in several stories. The windows and arcades in relief are almost invariably of pointed arched form, examples of the horseshoe shape being rare. The niches of the interior, on the other hand, are terminated by stalactite projections, while the marble incrustations and the revetments of glazed tiles are of the Moorish style. The Arabic language even appears in the inscriptions upon the friezes.

The traditions of early Christian art were naturally preserved in the religious edifices of the Norman epoch, but not without the introduction of Arabian influences. The Capella Palatina at Palermo, for instance, the nave of which is basilical, with Corinthian columns, while the choir, with its colored ornaments, is distinctly Byzantine, imitates the Moorish style both in the high arches and in the stalactite decorations of the horizontal ceiling. In this building are united, in striking contrast, the styles of the four periods of Sicilian history subsequent to classical times: the architectural forms of the later Romans, the Byzantines, the Saracens, and the Normans appearing side by side, without any attempt at combination.

Persia and Turkey also deserve mention among the countries in which Mohammedan art flourished. It is not possible to say in what connection the architecture of Persia stood to that of Bagdad and to the most primitive style of the Arabs, for the monuments of the first seven centuries of Mohammedan dominion west of the Tigris have disappeared almost without a vestige. The remains referable to the fourteenth and the fifteenth centuries, such as the Mosque of Tabris, are as closely related to the architecture of India and of Byzantium as to that of Arabia. In the edifices erected by the dynasty of the Sofids, and especially by that magnificent patron of the arts, Abbas the Great, A. D. 1585 to 1627, the founder of

Ispahan, the Occidental influences are not so apparent. The airy halls of Maidan Shahi (Place of the King), of Ispahan, display a combination of ancient Persian elements with the forms of Ghazni.

The mosques, palaces, bazaars, caravansaries, and medressehs, or high-schools, were formed by extended arcades of keel-shaped arches, supported upon piers, often in two stories, a grand portal placed in a niche occupying the middle of the façade. Tall minarets of circular plan stood upon either side of the mosque, the main hall of which was covered with a dome of an outline similar to the turnip-shaped cupolas of Russia, but of a more graceful curve. The upper story was commonly of timbered construction, and the columns, even when supporting horizontal ceilings of considerable span, were formed of wood. Friezes of Arabic characters took the place of a regular entablature, the ornamentation of the walls, composed of floral motives, being much more realistic in treatment than that of Cairo or Granada, and resembling the decorations of India both in form and in color. Glazed tiles were not often employed, and the arabesques were not sculptured in relief, a simple design of bright colors being painted directly upon the flat surface of the plaster. Even the largest buildings were seldom of a monumental character, while the private dwellings were not calculated to serve more than one generation.

The architecture of the Turks was entirely under the influence of that of the Byzantines. Even the Seljukians had returned to the hemispherical dome, and had copied their columns and decorations from Byzantine and especially from Armenian models, as is seen in the edifices of Konieh (Iconium), Kaisarieh (Cæsarea), Erzeroum, etc. The pointed arch was introduced as a novelty, while reminiscences of older styles are also met with, such as the imitation of the façades of Phrygian tombs in the Medresseh of Iconium.

The Turkish palaces at Broussa and Nicæa, dating to the fourteenth and fifteenth centuries, show that the forms of the Eastern empire were the more closely imitated the more the Ottoman Turks advanced towards Constantinople. After the fall of the capital, in the year 1453, the successors of Osman not only employed the chief church of that city for Mohammedan rites, but directly copied the Byzantine models in their earlier buildings, which were often de-

signed by Byzantine architects. It thus resulted that, notwithstanding the introduction of the pointed arch and some alterations and improvements of the concentric plan, the architecture of the Turks presents few constructive or artistic peculiarities. The Church of St. Sophia was frequently copied, notably in the grand Mosque of Soliman II., and the Church of the Apostles and that of the Sts. Sergius and Bacchus were also imitated. Byzantine materials were directly employed for the interior decorations, these being either procured from various buildings, as in the Mosque of Sultan Bajazet (A. D. 1498), or provided by the demolition of a Christian church, as in the mosques of Soliman II. and Selim II., built in the sixteenth century. Thus the architecture of the Turks returned to that dependence upon the art of the Eastern Empire with which the Arabians had begun in Syria.

In view of the fact that the main advances of Arabian architecture were not made in the all-important branches of construction, but rather in decorative adjuncts closely related to sculpture and painting, it is surprising that these latter arts were themselves not more cultivated by the Moslems. This neglect would have been quite incompatible with the delight in forms and colors which the Arabs have displayed, if they had not systematically avoided the representation of living beings, the true themes of the imitative arts. This aversion existed among the Jews as well as among the Mohammedans. The fanciful nature of the Semitic races is opposed to the accurate imitation of living organisms from the natural models, while the precepts of religion have followed the popular instinct in pronouncing a ban against that which was condemned by natural feelings. If Christianity had never extended beyond the land in which it originated there would probably have been no Christian as there was no Jewish art of painting.

The doctrines of Mohammed interdicted graven images even more severely than did those of Moses. Wine-drinking, gambling, the making of images, and the casting of lots are pronounced by the fifth sura of the Koran to be abominable, and the traditional Sunna even goes so far as to assert that the prophet chiefly directed his mission against three classes of men: the proud, the idolators, and the painters, declaring eternal damnation to be the part of those

who imitated the forms of living beings. Carved and painted representations of men and animals are thus considered by the Moslems as highly objectionable, and are consequently rare. In the few cases where they are found, even though side by side with masterly works of other branches of art, they are extremely rude.

The Mohammedans of India, Persia, Sicily, and Spain were more tolerant, this being doubtless as much due to their position in regard to strict orthodoxy as to the influence of the art previously existing in the lands occupied by them. The Jews were not wholly without sculpture, and it naturally resulted from the close connection between the religions of the Arabs and the Israelites that those graven images which Jehovah had overlooked were not regarded as offensive by the followers of the prophet. It is thus not surprising that figures similar to cherubim appear on the carvings of ceiling-beams and consoles, on vases and small mirrors of metal; or that the fountain basins supported upon the backs of animals, such as are known from descriptions to have existed in several Moorish palaces of Spain besides the Alhambra, should exhibit reminiscences of the Molten Sea of Solomon's Temple. It is certainly not accidental that the animals of the Fountain of the Lions in Granada resemble, in conventional treatment, the lions of the well-known Phœnician monument of Amrith,* while being entirely different from all similar figures of Romanic art. On the other hand, the Byzantine origin of other fountains of this kind,—such, for instance, as that of Az Zahra, with the figure of a golden swan,—is directly attested.

Whatever went beyond this was taboo, and was quite as offensive to the orthodox Mussulman as the wine-bibbing to which the Spanish Moors were much addicted. It appears to have been less hard for the Moslems to renounce the former than the latter sin, judging by the scarcity of their sculptures. The collections have preserved but few carvings, and the accounts of works of sculpture given by Arabic writers do not indicate the existence of any activity in this branch of art. The descriptions of real statues are scanty; we have little information concerning such doll-like figures of paint-

* "History of Ancient Art," by Dr. Franz von Reber, p. 136.

ed wood as the portraits of Khomarujah, his wives, and the singers of his court, which stood in a magnificent hall of his palace at Cairo, or of that portrait statue of the beautiful wife of Abderrahman II., which was placed in the Palace of Az Zahra near Cordova. We have no detailed descriptions of the female statues in Al Motamed's Palace of Seradjib at Silves, while the knight of bronze upon the gable of the Palace of King Badis in Granada appears to have been an architectural ornament, after the manner of an acroterion, rather than an independent work of sculpture. The representations of animals always have a more or less decorative or heraldic character, even when not serving practical uses, for instance, as gargoyles or the supports of fountains,—not being mainly remarkable for their



Fig. 103.—Marble Relief from Granada.

material value, like the golden lion with eyes of jewels in the Palace of the Water-wheel near Cordova,—or not being mere curiosities which, from the manner of their execution, are beneath our present consideration. This last was evidently the character of the twelve knights which, at the end of every hour, came out from as many niches of the clock sent as a gift from Haroun al Raschid to Charlemagne, as also of the "singing" birds of gold and silver in the tree of precious metal which stood in the audience hall of the caliph Muktadir Billah.

Other representations of the figures of men and animals were so entirely of a decorative character that the patterns with which they were combined were of more important dimensions, as well as more successful in artistic respects. In the relief from Granada, shown

in *Fig. 103*, the symmetrical arrangement of the forms is very noticeable, and the same is the case with the few remaining carvings of wood, in which single human figures are introduced into arabesques in combination with musical instruments, vessels, and hunting accoutrements.

The conventional treatment of animal forms in the textile works of the Moslems, which were so highly prized throughout Europe, was of decisive influence in the determination of the heraldic devices of the Middle Ages. The illustrations of manuscripts were often of a more naturalistic style (compare *Fig. 104*), but true mon-



Fig. 104.—Miniature in a Manuscript of Ibn Zafer, of Sicily, Library of the Escorial.

umental paintings were almost altogether unknown. The artists in mosaic who had been invited from Constantinople occasionally exceeded the limits of merely decorative representations, but their works were entirely Byzantine, as were also the imitations of them by Arabian hands, which were, however, rare, the fesifsa mosaics of the Arabs usually being limited to floral patterns. When Mohammedan painters attained to an individual celebrity this was commonly due to their illuminations, as is evident from the accounts of the artists Kassir and Ibn Aziz, who, in the eleventh century, were employed by the bibliophile Bazuri, vizier of the court of the caliph Mostansir. The mural paintings which they are said to have exe-

cuted in competition, representing the figure of Kassir going into the wall, and that of Ibn Aziz coming out from it, should rather be considered as ingenious displays of technical bravura than as examples of a true monumental art. To admit this is not to question the rivalry of the two artists, related by Makrizi, although the episode may have been borrowed from the well-known anecdote of Zeuxis and Parrhasios. The tales concerning the miraculous "Joseph in the Well" of the painter Al Kitami, in the Dar ul Noman at Cairo, belong to the same category; while the painted garden wall of a house at Bagdad described in the "Arabian Nights," if not altogether fabulous, may be considered as a reminiscence of the pic-



Fig. 105.—Painting from the Hall of Judgment in the Alhambra.

torial art of Mesopotamia, the influence of which upon Mohammedan painting was, without doubt, quite as important as was that of India.

Similar relations were maintained with the Occident. The walls of the early Christian churches occupied by the Moors were covered with paintings, and manuscripts illuminated by Western artists must frequently have fallen into the hands of the Saracens. Ibn Khaldun, one of the most intelligent and trustworthy of Arabic writers, asserts that the Mohammedans of Andalusia had adopted the custom of decorating their houses and palaces with paintings "in consequence

of their intimate intercourse with the Christians." We have accounts of pictorial representations on walls in the Palace of Al Motamed in Seville, and on ceilings of a castle of Al Mansour in Bagia; while in the Alhambra there are still three well-preserved paintings on leather, which were affixed to the ceilings of the three niches in the so-called Hall of Judgment. One of these latter, with the figures of ten kings of Granada, is decidedly of an Oriental character, and mention is made by Moorish writers of works of portraiture of this kind. The subjects, the composition, and the details of the two other paintings leave no doubt that they are products of Occidental art, and are referable to the Gothic period (*Figs. 105*



Fig. 106.—Painting from the Hall of Judgment in the Alhambra.

and 106). The hunts, chivalric encounters, and episodes of knightly love, even the architecture represented in them, are so foreign to Arabic conceptions that they must be ascribed to Christian painters or renegades.

The methods of textile art, which were so important in determining the characteristics of Arabian architecture, tended also to limit the provinces of sculpture and painting. Subjects which were not adapted to representations in weaving and embroidery were but rarely modelled or drawn. The intricate repetitions of tapestry patterns were almost exclusively employed as models, serving for the decorations of walls in arabesques of relief or color, as well as in

woven hangings. There was thus no field for independent creations in the imitative arts. While the Moslems delighted and excelled in poetical accounts of human charms and deeds, and in the musical expression of the feelings, they remained indifferent to pictorial and plastic representations of these subjects,—the permanence of which did not agree with the intellectual mobility of these children of the desert.



Fig. 107.—Part of the so-called Palace of Theodoric in Ravenna.

THE CHRISTIAN ART OF THE NORTH UNTIL THE CLOSE OF THE CAROLINGIAN EPOCH.

AS the Celts and the Germans received Christianity from the Romans, it is not surprising that the earliest Christian works of art should be as little distinguishable in the North as in Italy itself, from the pagan and classic models which preceded them. This was particularly the case in those districts of Gaul and Germany which had been for centuries under the sway of the Romans, so that the primitive indigenous art had long been entirely supplanted by the civilization of Rome. The great extent and uniformity of the Roman Empire was highly favorable to the expansion of the Christian faith, and to the introduction of the regular architectural forms which had been determined as most fitting for the Church. The conversion of the Celto-Germanic provinces of Rome thus resulted in a repetition of the ecclesiastical buildings of the capital itself, the art of the ancients affording not only models but materials for the new edifices, which were frequently constructed of the fragments of Roman works.

The frequent introduction of such older architectural members

renders it difficult to assign a date to the more primitive buildings of the North erected for Christian worship. This eclectic practice would interfere with a systematic historical consideration, even if many more memorials had been preserved. An approximate chronological determination is possible, inasmuch as the decadence of art beginning with the third century had affected the entire Roman Empire, alike from the Rhine to Africa, and from Spain to Greece; but the customary plundering of earlier buildings and the indiscriminate copying and restoration does not allow us to draw conclusions as to the exact age of any of the structures. It is, for instance, impossible to tell whether the large columns of granite in the Cathedral of Treves (*Fig. 108*), three of which are built into the piers of the later restoration, are a part of the first construction, assumed to be as early as A. D. 330, or were introduced in the rebuilding of this church by Bishop Nicetius, between 534 and 565. The same is the case with the rough Corinthian capitals surmounting the pilasters which correspond to these shafts.

The eastern Germanic races, on the other hand, had not had the training of Roman culture during preceding centuries, but were civilized and Christianized at the same time, either through their own migrations, or through the labors of missionaries sent from Rome. These tribes did not build cities, but lived in granges, dispersed throughout the country, thus having no important public buildings or houses of worship. They could but accept the civilization of the Romans without reserve. Still it is not strange that their subsequent works should display the barbarous debasements which resulted from want of practice in the arts, as well as from the introduction of certain native reminis-

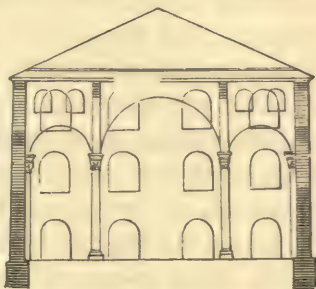
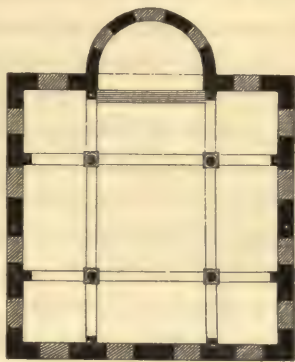


Fig. 108.—Restored Plan and Section of the Cathedral of Treves.

cences into the classic style. In districts remote from the great centres of contemporary culture the adoption of the antique civilization could not be thorough and lasting. Indeed it was scarcely possible to introduce an understanding of classic architecture and art through the missionaries, even if these agents had done their utmost to further such ends. Thus primitive and indigenous timbered constructions, such as block houses, continued to be erected in those tracts of Germany which had not been colonized by the Romans, especially in the north-eastern districts.

Even in those countries which had been occupied by the eastern German races, the few vestiges of artistic works, dating to the period of their domination, which have been preserved to the present day, exhibit barbarous traits. This was the case with the architectural creations of the Ostrogoths,* who during the short period of their occupation of Italy, from the beginning until the middle of the sixth century, and especially under the energetic government of Theodoric the Great, erected more important monuments than did the later Roman emperors themselves. These works, it is true, were chiefly raised by the hands of their Roman subjects: it is known that Theodoric himself employed Cassiodorus of Scylaceum as councillor and private secretary, and the Romans, Aloisius and Daniel, as architect and sculptor of the court. Thus the restorations made by the Ostrogoths in Rome are not to be distinguished from the last works of the Cæsars; while the fortification walls of Verona and the substructure of Theodoric's palace at Terracina exhibit no architectural innovations.

In some instances the Northern builders did not resist the temptation to put their own hands to the work, traces of their individuality being plainly recognizable in those two monuments of the Ostrogoths which have remained in the most perfect state of preservation. The first of these, the structure now forming the façade of the cloister of the Franciscans at Ravenna (*Fig. 107*), is not known with absolute certainty to have been a part of the

* G. Cordero di S. Quintino, *Dell' italiana architettura durante la dominazione Longobarda*. Brescia, 1829.—F. Osten, *Die Bauwerke in der Lombardei vom 7. bis zum 14. Jahrhundert*. Darmstadt, 1846–1854.

Palace of Theodoric; but the helpless imitation of such Roman structures as the portal of Diocletian at Spalatro, and probably also the palace of the last emperors of the Western Empire at Ravenna, lead us to consider it rather as a first attempt of the Goths than as a previous Roman or a subsequent Byzantine work. The entire lack of understanding of the forms of classic architecture,—appearing, for instance, in the curious imposts of the entrance-portal, in the consoles supporting the sill upon which stand the small columns of the upper story, and in the outlandish capital from a column of the Tribune (*Fig. 109*),—is so striking that we are obliged to consider this façade to be the work of the barbarians.

The second memorial of the Ostrogoths, the mausoleum of Theodoric, now S. Maria della Rotonda, is known with greater certainty to have been built during the reign of Theodoric, and in artistic respects more clearly displays the characteristics of the Northern invaders (*Fig. 110*). The so-called Palace of Theodoric closely resembles the palace of a Roman emperor: in like manner the mausoleum

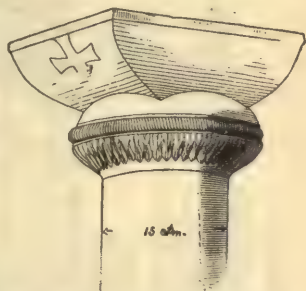


Fig. 109.—Capital from the so-called Palace of Theodoric.

of Theodoric is an imitation of the tombs of Augustus and Hadrian,—that of the former serving as a model for the lower, that of the latter for the upper story. The details of its execution exhibit many forms foreign to Roman art, blended with those of the debased style of the sixth century. The dimensions of the monument are not great, it measuring only 13 m. in diameter and somewhat over 14 m. in height, but its position, and the size of some of its stones, give it an imposing character. The decagonal substructure forms ten niches of rectagonal plan, one of which provides the entrance to the cross-shaped funeral chamber. The round arches of these niches show a joggling of the voussoirs rare in Roman architecture, this refinement appearing also in the horizontal discharging lintel above the door of the superstructure. The ten-sided upper story is but 10.5 m. in diameter. The step thus resulting formed a concentric passage, ornamented with a colonnade of

double shafts, which has now disappeared. Traces of the curved juncture of its ceiling with the walls are still visible, these indicating that it was not a regular vault, but a combination of ceiling and lean-to roof, formed by blocks extending from one support to the other. Above the encircling projection upon which this roofing rested, the walls are continued in round plan to a bold cornice. The mouldings, of singularly barbarous profile, support a band similar to a frieze, the forms of which appear to be an imitation of

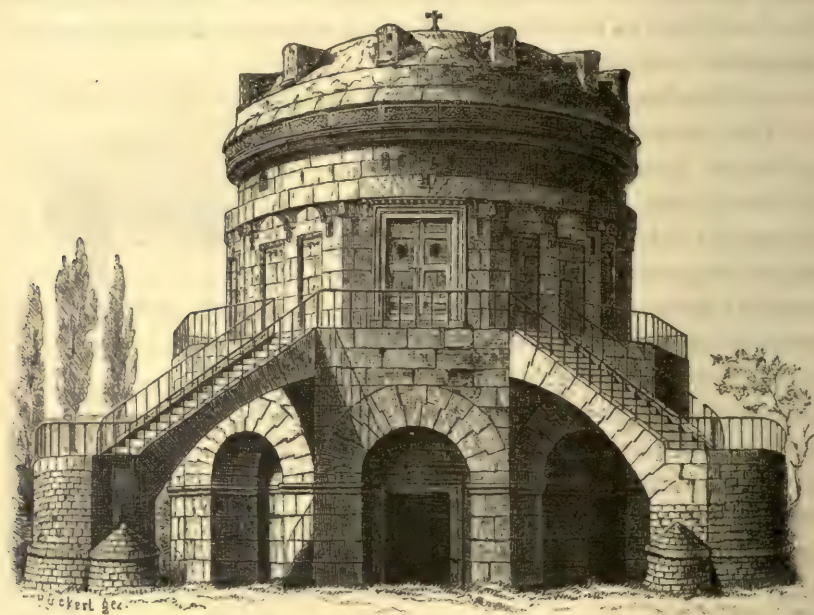


Fig. 110.—Mausoleum of Theodoric in Ravenna.

boards perforated by fret sawing, and are even more foreign to the Roman style than are the debased egg-and-dart cymas in the recesses of the upper story. Upon this main cornice rests a monolithic dome, of a low shape, unknown to Roman art, and provided with knob-like handles. The stone, brought from the quarries of Istria, measures not less than 10 m. in diameter and 1 m. in thickness. The transportation of this gigantic block across sea and land was a very considerable undertaking,—as it has been termed by Schnaase, a combination of Roman intelligence with Gothic force

similar to that which Theodoric endeavored to attain in his Italian empire.

Byzantine civilization, which had long been gaining ground in Ravenna, and was fully established through the occupation of Italy by Justinian, would, without doubt, have been further extended had not the power of the Western Empire been again driven back by another Germanic race, the Lombards. The rule of the Ostrogoths, especially during the reign of Theodoric, had not led to a diminution of the artistic industry of Italy; this was not the case with the hordes of Alboin, which were far more rude than the Goths, and consequently adapted themselves more slowly and more imperfectly to the existing civilization of Italy. The Romans were by this time so reduced by their continual struggles with the Barbarians and the Byzantines, that they could not exercise so great an influence upon the Lombards as they had upon the Ostrogoths. Still, memorials of Lombardic architecture are not altogether lacking. The palaces of

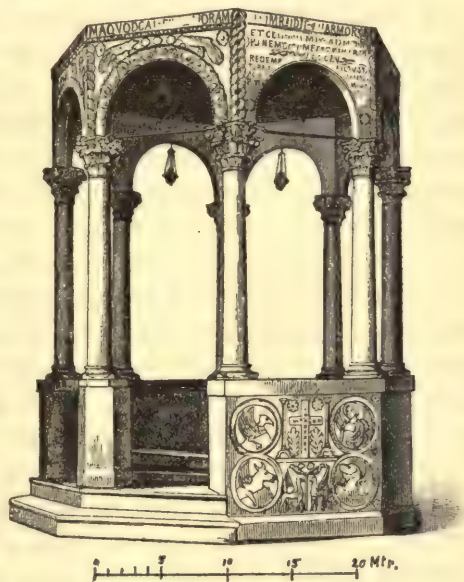


Fig. III.—Baptistry of the Patriarch Calixtus in S. Giovanni, Cividale.

Queen Theodelinde, that of King Bertari at Pavia, and that of King Luitprand at Olona, even attained a certain magnificence, which may be ascribed to the Byzantine decorations of these edifices. The Palazzo delle Torri in Turin was probably erected before the occupation of the country by the Lombards, while the age of S. Frediano and S. Michele in Lucca, and of S. Salvatore in Brescia is at least uncertain. The Baptistery of the Church of St. John at Cividale is in greater part well preserved. It was erected by the Patriarch Calix-

tus of Aquileja, A. D. 716 to 762, who had transferred his seat to Cividale from Cormons, whither it had been removed after the destruction of Aquileja by the Huns. The octagonal structure which now remains (*Fig. 111*), consisting of archivolts and columns of early Christian character, is but the interior of the original monument; it was placed within the church after the earthquake of 1448.

After the age of Justinian the civilization of Italy continued to decline, until it became inferior to that of Gaul and Western Germany. In the south of Gaul the Visigoths of the empire of Tolosa long preserved the artistic traditions of Rome, while in the north traces of an independent culture began to show themselves under the Frankish Merovingians. The palaces built by this dynasty, when Roman edifices were not available for occupation, were little superior to the granges of the primitive Germanic chiefs, being constructed chiefly of wood, or, in rare instances, of rubble masonry cast in mortar "*gallicano more*,"—very different from the hewn stones of the "*opus romanum*." On the other hand, the Merovingian churches early attained a certain degree of perfection, and had an important bearing upon the future development of ecclesiastical architecture.* The designs were influenced by the style of Milan, and indirectly by that of Ravenna and Constantinople, this being due to the position of Milan in religious matters and to the political ascendancy of the two latter cities. The Church of the Virgin at Ebrodunum (Embrun), built as early as A. D. 392 by Bishop Artemius, and the Church of SS. Gervasius and Protasius in Tours, built by Bishop Eustochius between the years 443 and 460, both obtained their stock of relics from Milan. It is hence probable that the cruciform plan of these edifices was imitated from that of the Church of the Apostles in Milan (S. Nazaro al Corpo, or Grande), in the same way as this, in its turn, had been derived from the Constantine Church of the Apostles in Byzantium. The plan of the church at Clermont, built by the bishop Namatius between 446 and 462, is particularly mentioned as having been shaped like a cross, and this was probably also the case with the Church of the Apostles,

* H. Graf, *Die Entstehung der kreuzförmigen Basilica*. (*Opus francigenum*.) Stuttgart, 1878.

or, as it was called in later times, St. Genoveva, in Paris, which Clovis, the founder of the Merovingian dynasty, erected after A.D. 496 as his mortuary chapel. But it is certain that the transepts of these churches were only covered by horizontal ceilings, as had been originally the case with the Church of the Apostles in Constantinople, built before the age of Justinian, and also with the Church of the Apostles (S. Nazaro) at Milan, built by St. Ambrosius towards the close of the fourth century. Vaults like those of S. Nazaro e Celso in Ravenna rarely appear during this period, and were employed only in small dimensions.

Basilicas of the normal arrangement, without transepts, also appeared in France during the earliest ages. The Church of St. Martin at Tours, founded by Bishop Perpetuus in 472, was of this simpler type, and we should doubtless consider as regular basilicas all those churches which were built by the successors of St. Benedict, after St. Maur, following the call of Innocent, bishop of Le Mans, had come to Gaul in the year 543, and founded Glannafolium (Glanfeuil) in the district of Anjou. This explains the resemblance of the four churches of that place, among which is the tower-like structure of St. Michael, to the prototype of Monte Casino. Childebert, the son of Clovis, had his residence in Paris and did not receive the emissaries of St. Benedict with favor. In the important basilica of St. Vincent (St. Germain-des-Prés) in Paris, built between 543 and 558 as the second mortuary chapel of the Merovingians, he returned to the cruciform plan, as did also Clotaire, the fourth son of Clovis, in the Church of St. Medardus at Soissons, built between 560 and 570 as the third mausoleum of his dynasty. This latter edifice did not equal the architectural importance and magnificence of St. Germain-des-Prés, whose marble columns, gilded ceiling-panels, and copper roof were celebrated by the poets of the Merovingian and Carolingian ages. The extension of the western transept and the enlargement to three aisles, which gave to St. Germain-des-Prés the character of a basilica, are probably to be ascribed to Chilperic, the nephew of Childebert, A. D. 577. This was, in all probability, the first appearance of that combination which was repeated in the plan of St. Gall, and was destined to serve as the fundamental type of mediæval church architecture.

It appears that the monks of the observance of St. Anthony and St. Basil, who at first were numerous in France, and possessed the cloister connected with St. Germain, were more inclined to adopt the traditions of the Byzantines than were the followers of St. Benedict. The order of Monte Casino gradually became more important; it is worthy of note that the first abbot of St. Medard at Soissons, a certain Daniel, was a pupil of St. Maur. The successors of the Irish missionary Columbanus, who had come to France in 575, and, with the assistance of King Childebert II., had founded Luxovium (Luxeuil), Fontanæ, and Anagratum in Burgundy, could not long remain independent of the Benedictines. The observances of St. Benedict and St. Columbanus were first combined in Luxeuil itself, and the new rules were soon adopted by the other cloisters. The cruciform plan peculiar to the Franks was not, however, given up. It appeared in the Convent of the Cross near Meaux, founded in 628 by Bishop Faro, as well as in almost all the more important cloisters built about the middle of the seventh century. Among these may be mentioned St. Denis near Paris, and Centula (St. Riquier) near Amiens, both of which owe their existence to Dagobert I.; Fontanellum (Vandrilie) near Rouen, founded in 648 by St. Wandregisel with the assistance of Clovis II. and his wife, Bathildis, and containing not less than six churches; Gemeticum (Jumièges) near Rouen, built in 655 by Bathildis through the agency of Filibert, a monk of Luxeuil, the main church of which is particularly stated to have been a cruciform basilica; and finally Corbie, built in 657 by the same Bathildis, and containing three churches and as many oratories,—the direct influence of which upon the architecture of Germany will be referred to in another chapter.

There was an architectural activity not less remarkable in the countries upon the left bank of the Rhine, especially in and around the towns of Treves, Cologne, Mayence, Speyer, and Strasburg. As early as the sixth century Treves, with its dependencies under the bishops Nicetius and Magnaricus, was remarkable for its ecclesiastical buildings. Besides the before-mentioned cathedral, particular importance is to be attached to the Castle of Nicetius, which probably occupied the site of the later Bischofstein. It is praised by the bishop Venantius Fortunatus of Poitiers, who described it, to-

wards the close of the sixth century, as a spacious and magnificent stronghold, encircled by a rampart with thirty towers, and provided with a three-storied watch-tower as well as with various chapels, etc. Similar accounts have been handed down to us concerning cloisters and churches built, during the seventh century, in Tholey, Mettlach, Echternach, Oeren, and Pfalzel,—all in the diocese of Treves. In Mayence, in the sixth century, the bishop Sidonius played as important a part as did his contemporary Nicetius in Treves, his architectural activity having been devoted not only to the erection of ecclesiastical edifices but to the fortifications of the Neustadt, which were not completed until the beginning of the eighth century. This new town had arisen near the ruins of the original Roman settlement of Magontiacum, which had been destroyed in the year 406. In Cologne, which remained one of the chief towns of Austrasia until the deposition of the Merovingians, the western polygon of St. Gereon is referable to the sixth century, while the Church of St. Clement, outside the walls of the city, is assumed to have been built towards the close of the seventh. In the diocese of Speyer, the Church of St. Germain, outside the town, and the Cloister of Weissenburg on the Lutra were both built during the seventh century. To the same period belong St. Thomas in Strasburg, founded by Scottish missionaries, and the neighboring cloisters of Haslach in the Vosges, of Muenster near Colmar, Schuttern near Offenburg, St. Sigismund near Rufach, and Mauresmuenster near Saverne.

In the southern and eastern provinces of Germany Christianity was generally introduced or propagated by missionaries from Ireland. This was the case with Bregenz, where St. Columbanus, who had been driven out of Burgundy, restored, in the beginning of the seventh century, the extremely ancient chapel of St. Aurelia; with St. Gall, where a pupil of Columbanus, St. Gall, who died in 640, erected the wooden cloister cells in the wilderness; with Saeckingen, which at about the same time was chosen by the Irish monk Fridolin as his abode; and with Fuessen, where preached Magnoald, a pupil of Gall. Farther eastward in Southern Germany some few Christian missionaries had erected their wooden hermitages at an earlier period. Chief among them was St. Severinus, the founder

of Kuenzen, who died in 481. No cloisters of great extent were built before the seventh century, when Rudpert of Worms received from the Agilolfing Duke of Bavaria, Theodo II., the permission to settle upon the ruins of Juvavia (Salzburg), where he built the Church of St. Peter, as well as the nunnery upon the Nonnberg. St. Emmeramnus and other Irish monks labored in Ratisbon.

In all those places where settlements of the Romans had not existed the cloisters were almost exclusively constructed of beams of oak and thatched with straw; this manner of building (*opus scoticum*) remained in general use even until the first half of the eighth century, at which time houses of masonry existed only at St. Gall, Fulda, and Lorsch. The convents continued to increase in number and importance, the most noteworthy among them being St. Gall. The Abbot Otmar, A. D. 720 to 760, replaced the wooden cell of St. Gall by a "palatium," and built the great Basilica of St. Paul with stone walls and with a crypt under the choir. This crypt must have been the earliest example of its kind, unless we may assume, with Viollet-le-Duc, that the chambers in the basement of the seminary at Orleans are to be ascribed to the sixth century. It is certain that the buildings in Lorsch on the Waschnitz, founded in the year 763 by Count Cancor, were of stone, this material having been employed for the basilica from the first, while the wooden dwellings of the monks were replaced by masonry at the end of the eighth century. And it is to be presumed that a construction of masonry was adopted for the churches of Mayence, at least for those within the town, which were built during the latter half of the eighth century; chief among these were the Church of St. Martin, which afterwards became the cathedral, and the Church of St. Lambert. The same was probably the case with the churches of St. Martin and of St. Mary of the Capitol in Cologne, the former founded by Pipin Heristal, the latter probably by his wife Plectrudis; and also with the convent churches founded by Pipin II., A. D. 762, in Pruem and Kesslingen.

The cathedral and the churches of St. Benedict and St. Stephen in Freising, erected by the bishop Corbinian, who had been consecrated in Rome about 724, were originally of wood, and were not rebuilt in masonry until the end of the eighth century. It may hence

be supposed that the greater number of the cloisters in Bavaria and Upper Austria were likewise timbered constructions; among these are Benedictbeuren, Wessobrunn, Staffelsee, Kochelsee, Scharnitz, Schlehdorf, Scheftlarn, Tegernsee, Schliersee, Ilmmuenster, Altmuenster, Rott, Metten, and Weltenburg, and the cloisters of Herren and Frauen Chiemsee, said to have been built by Thassilo, and belonging to the diocese of Salzburg; furthermore the dependencies of the bishopric of Lorch, which was removed to Passau after the invasion of the Avars in 738,—namely, Niedernburg, Niederaltaich, Osterhofen, Pfaffenmuenster, Monsee, Kremsmuenster, and St. Florian; those of this list now belonging to Austria were particularly favored by their founder Thassilo. To this category belong also most of the cloisters in the countries of the Upper Rhine, dependent upon St. Gall or the Bishopric of Strasburg: Reichenau, on an island in the Lake of Constance, Luetzelau, similarly situated in the Lake of Zurich, Marchthal, Kempten, Hohenburg, Niedermuenster, Ebersheimmuenster, Maasmuenster, Honau, Ettenheimmuenster, Surburg, Schwarzach, Neuweiler, Leberau, St. Hippolyte, and Murbach.

The buildings which were erected in Hesse, in connection with the mission of the Anglo-Saxon Winifrid (St. Boniface), were, without question, of wood. Among them may be mentioned the cells of the monks upon the Amanaburg, built in 722, the cloister and church of St. Peter upon the heights of the Buraburg, about ten years later, and the ecclesiastical houses of Christenberg, Ohrdruf, Altenberg, Herbsleben, Uhrleben, Langensalza, Trettenburg, Greussen, Monra, and Creuzberg. It is recorded that the Chapel of St. Peter near Fritzlar was constructed of the wood of Wotan's Oak, which was felled in 724. The Cloister of Fulda was the first to be built, in part at least, of masonry, the Church of St. Saviour connected with it having been entirely of stone, but this construction was as late as A. D. 755, the year of the martyrdom of St. Boniface. The pre-eminence of Fulda was due to the important character of the town, which had four thousand inhabitants even at the time of the first abbot Sturmius, and was the chief centre of primitive Christianity in Middle Germany. It is possible that the mortuary chapel upon the Petersberg, consisting of three aisles and a transverse portico, all covered with barrel-vaults, was built during the eighth cen-

tury. The most important dependency of Fulda was the bishopric of Wurzburg, where, upon the Schlossberg, there may still be seen the ruins of an ancient Church of the Virgin, which was, without doubt, built during the eighth century,—at the time when the Irish monk Kilian was propagating Christianity in Thuringia and Franconia. Kitzingen and Tauberbischofsheim were probably founded by Burghard, the first bishop of Wurzburg, whose diocese had been greatly extended by Karlmann. Eichstædt flourished under its first bishop Willibald, the nephew and pupil of Winifrid, and in the eighth century there arose in its neighborhood the establishments of Heidenheim, Hasenried, Wilzburg, and Solenhofen, the last of which was named after the English missionary Sola. Erfurt, although chosen by St. Boniface as the seat of a bishop, did not become important until a century after its foundation; while the Cloister of Buraburg, at first of some eminence, was soon incorporated into the more favorably situated Fritzlar.

It is not strange that almost no remains of buildings antedating the Carolingian age should have been preserved to the present day, for the masonry, which was of rubble cast in thick mortar, was in many cases not more enduring than wood-work. Walls of this kind were invariably destroyed when new structures were erected upon their site during the Romanic epoch. Both methods of building were exceedingly rough,—the wood-work being a simple block construction, the masonry entirely plain, while the roofing was of irregular shingles weighted with stones, or of straw thatch. Even in those provinces of Western Germany, Northern France, Spain, and England, which had been occupied by the Romans, the traditions of antique art had been almost entirely forgotten. When ancient architectural ornaments or hewn stones were employed, they were arranged in a fashion even more barbarous than that observable in the later basilicas of Rome, the only attempt at design being a rhythmical variation of the courses. The most noteworthy examples in France are the Baptistery of Poitiers (*Fig. 112*), which probably dates to this period, the ancient Basilica of Beauvais, known as the Basse-Oeuvre, and the two churches of Savennières and Genes in the Departments of the Maine and the Loire. The interior adornments, fine marbles, metals, and carpets were at times of some importance.

but the carvings were chiefly antique remains, amassed without order or artistic significance, while the works of other materials, however great their intrinsic value, are rather to be classed as furnishings than as organic parts of the structure. The methods of Roman art had been entirely lost in England, where, after the conversion of the country, commenced A. D. 597 under Pope Gregory the Great, the first churches were built of wood, as in Germany. The stone edifices which St. Paulinus erected in the beginning of the seventh century at Lincoln and York were exceptional; and the appearance of such structures was limited to towns previously occupied by the Romans, York, for instance, having been a place of considerable importance in the time of Septimius Severus. Towards the end of the seventh century masons were brought to England from France and even from Rome, and accounts have been preserved to us of buildings erected by them of hewn stones ("*opus romanum*"), but there is never mention of architects or of an artistic design. Neither the scholasticism which in the eighth century began to be cultivated by the cloisters of England, nor the religious fervor which had long existed in Ireland, had been accompanied by any noteworthy architectural activity.

In Germany princes, bishops, abbots, and missionaries labored together to erect the necessary ecclesiastical buildings, but it does not appear, from the few accounts which have been handed down to us, that the same attention was devoted to the domestic architecture of the country. The ruins of Roman castles which were available were occupied by the nobles, who repaired their walls of hewn stone with a wretched masonry of rubble and mortar. This



Fig. 112.—The Baptistry of Poitiers.

was the case in Hohenburg near Strasburg, in Egisheim near Colmar, and probably also in the bishoprics of Salzburg and Passau. When castles were built entirely anew they were seldom planned as fortifications,—the rulers, like their vassals, living in open granges. Princely or episcopal castles upon elevations, as at Wurzburg and Freising, had become exceptional after the age of Bishop Nicetius of Treves, at least in those towns which had not originally been built by the Romans.

This unfavorable condition of architecture was in accordance with the troublous times of the last Merovingian kings. A great advance was at once made upon the accession of the Carolingian dynasty to the Frankish throne, especially after Charlemagne, A. D. 768 to 814, had elevated his empire to the first power in Christendom. Not less remarkable for his furtherance of learning than for his successes in politics and warfare, Charlemagne had early brought scholars to his court even from countries beyond the wide extent of his realm. His campaigns in Italy had made him familiar with the greatest works of imperial Roman, as well as of early Christian and Byzantine art. It was not strange that, like Constantine before him, he should have conceived the idea of creating a new Rome in the centre of his empire, so as to make the capital which he had chosen for himself and his successors the worthy seat of a new line of emperors.

The entire loss of the artistic traditions of classical times rendered the accomplishment of this design far more difficult than it would have been three centuries previous. Intelligent architects, many of whom had acquired their training in Italy, were not lacking, but the execution was necessarily confided to hands entirely unskilled. It is difficult to say what value should be attached to the experience gained by the Franks during the construction of the extensive cloister of Fontanellum (Vandrilie) near Rouen, by the abbot Gervold after A. D. 787, or of the buildings erected at Fulda by the abbot Sturm. Certain it is that Charlemagne was not able to find a sufficient number of workmen in his own provinces, as we are informed that he brought artisans from all the countries "this side of the sea,"—that is to say, from all parts of southern Europe with the exception of the Byzantine and the Moorish em-

pires. Hewn stones were brought from the town of Verdun, which had been demolished by Charlemagne; and so entire was the inability of the Franks to design the interior decorations, that they not only collected the few Roman vestiges remaining at Treves, but even brought mosaics, revetments of marble, and columns from Ravenna and Rome. Unfortunately, the poetical description given by Angilbert of the architectural activity which began in 796 at Aix-la-Chapelle is hyperbolical and untrustworthy; still it is certain that the monuments of Charlemagne comprised all the public buildings of the city. Among these were the forum, a town-hall, baths, and a theatre (probably an amphitheatre), halls for other civic purposes and the fortifications of the town being included as a matter of course. The chief importance was assigned to the palace, and to the church which stood in connection with it. This last has been preserved in its most important parts, and the period of its construction is known with certainty to have been the years between 796 and 804. The Minster of Aix-la-Chapelle is thus by far the most important monument of the North antedating the Romanic period.

The architecture of Ravenna was more directly imitated in Aix-la-Chapelle than was that of Rome, this choice having undoubtedly been made by the emperor himself, to whom the entire conception was due. We have no positive information concerning the designers to whom was confided the technical execution of these edifices,—the first monuments of independent artistic interest erected in Europe after an inactivity of more than three centuries. Tradition names in this connection Ansegius (Ansegius), afterwards Abbot of Lobies and of Fontanellum, and, as his successor, Eginhard, the biographer of Charlemagne, who was educated in Fulda. Ansegius is once mentioned as *exactor operum regaliū*; and Eginhard speaks in his letters of having studied the writings of Vitruvius, conferred with the Abbot Batgar of Fulda,—himself a builder of some experience,—concerning the works of the Roman architect, and received from his friends the sobriquet of Bezaleel, after the builder of the Biblical tabernacle. It appears more probable that the superintendence of the minster was confided to an otherwise unknown "Master Odo," whose name was

given by an inscription in the church which remained until the tenth century. It is not known whether this architect was responsible for the design.

The plan (*Fig. 113*) can in no wise be considered as either original or artistic. It followed in the main the arrangement of San Vitale, while influenced perhaps in some degree by the old Cathedral of Brescia.* The changes introduced were either rendered necessary by the new requirements, or resulted from the endeavor to obtain a greater simplicity, and were by no means advantageous from an æsthetic point of view. It is plain that the chief desire of the builders of the minster was to equal the models, at least in technical respects; and in view of their want of experience, and the great difficulties presented by the construction of the cupola, the performance is certainly most creditable. Probably with the intention of separating the lower story of the church, which was accessible to the public, from the galleries reserved for the imperial court, the dome and octagon, greatly resembling the corresponding parts of S. Vitale, were elevated upon a simple arcade of piers. This comparatively low substructure is connected with the sixteen-sided outer wall by a complicated system of vaulting, cross-vaults being introduced between the eight sides of the central structure and the corresponding sides of the enclosure, while the eight triangles remaining were covered with tripartite vaults, as in the Cathedral of Brescia. This was an effective construction of considerable difficulty for that period, and the vaulting of the upper story was even more ingenious and significant. The eight main arches were not enlarged by an equal number of apses, as in S. Vitale, probably from a desire to decrease the practical difficulties by a simplification of the plan, and to avoid an interference with the space provided by the gallery. In Ravenna the side thrust of the cupola had been ingeniously counteracted by the eight conches terminating the apses of the upper story; to produce a similar effect in the Minster of Aix-la-Chapelle the galleries were covered by eight barrel-vaults, inclined against the walls which supported the central dome, while in the remaining triangles there resulted a complicated

* Quite recently proved to be of later date. (Art. D. Scavi, Sept., 1885.)

kind of rampant conical vaults. The principle here involved was that of the flying buttress, the further development of which, by the architects of the Gothic style, was destined to become of so great importance. The æsthetic treatment of the interior by no means

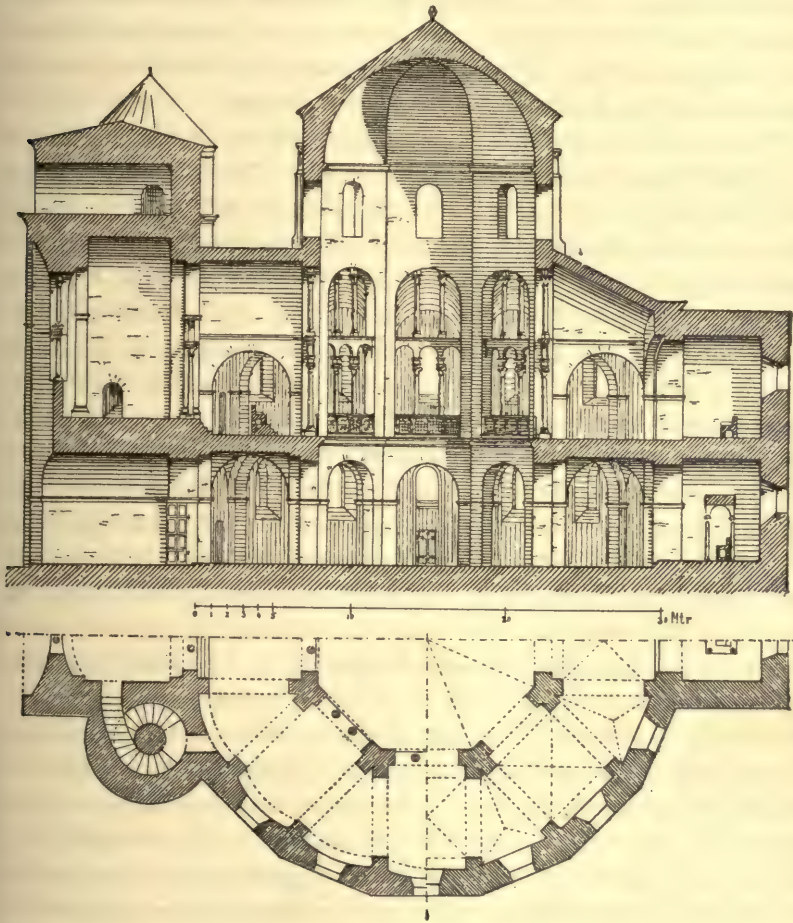


Fig. 113.—Plan and Section of the Minster of Aix-la-Chapelle (original arrangement).

kept step with the constructive advance of this arrangement, the ceiling not being of a pleasing form, while the two stories of columns introduced into the main arches were delusive. As the space remaining was not sufficient for the introduction of the smaller ar-

acades above the upper columns, these supports were so placed that their capitals abutted directly upon the intrados of the main arch, in a manner entirely contrary to the principles of columnar construction. The eight walls of the octagon were carried up so high that the windows were placed in the drum and not, as in S. Vitale, in the curve of the dome. As there was no transition between the octagon and the impost of the dome, which was continued as an octagonal vault, all pendentives were avoided.

The architectural style of the minster, like its plan, evinces practical intelligence rather than artistic taste. The masonry, though solid, was rough, and executed wholly without reference to its appearance; the columns, cornices, and other members were few, and exceedingly simple. There was no attempt to equalize the columns, which were brought from various places and were of very different dimensions; as long as they were of valuable material, no attention was paid to the design of the bases and capitals, which were partly Corinthian and partly composite. The cornices, executed at the time of the building, were exceedingly rude. The bronze work of the balustrades and doors was of a somewhat higher character, and will be described subsequently, in connection with the paintings and mosaics which formed the interior decorations. It is not certain whether the tomb of the emperor was intended to occupy the centre of the octagon. The apse was replaced in the fourteenth century by a disproportionately tall Gothic choir; while the tower upon the eastern side, at least in its upper parts, has been entirely changed in appearance. Indeed, all the exterior, with the exception of the buttresses terminated by capitals, between the windows of the drum, has suffered so much from additions and reconstructions dating to the most various periods that it is now impossible to judge of its original effect. Eight of the columns from the interior, which were carried away by the French and not returned, have been replaced by new ones, and many other parts of the structure have been recently restored.

The Imperial Palace of Aix-la-Chapelle has disappeared without a trace. It was probably an aggregate of separate buildings grouped around one or more courts. An anonymous writer of the time, a monk of St. Gall, relates that the quarters of the imperial suite, the

lower stories of which were open arcades, were so disposed upon all sides of the dwelling of the emperor that the monarch could observe the movements of his retinue from the upper windows. But scanty vestiges remain of the other palaces built by Charlemagne at Ingelheim, Nymwegen, Frankfort, Worms, and Tribur. That of Ingelheim seems to have been the most extensive and magnificent of these edifices, although little value can be attached to the accounts of its hundred columns and thousand doors given by a Carolingian poet-laureate. The few remains of these columns now preserved in the museum and the cathedral of Mayence, in the court of the Castle of Heidelberg, and in Ingelheim itself, show that there was as little attempt to attain to a national independence in artistic respects in the Palace of Ingelheim as in the Minster of Aix-la-Chapelle,—thus offering another proof that the Carolingian architecture had no other aim than to revive the Roman style. The imperial villa at Nymwegen was, in greater part, burned by the Normans as early as A.D. 880; nevertheless, it remained habitable and was restored by Frederick Barbarossa. The polygonal chapel of the palace, the only part of the edifice saved from demolition after the bombardment by the French in 1794, was built during the time of Barbarossa, but probably retained the plan and imitated the details of the original Carolingian structure, as is evident from the form of its capitals and bases, the bulging shafts of the columns, and especially from the general appearance of the whole being that of a simplified reproduction of the Imperial Minster on a small scale.

In view of the sensation made by the Minster of Aix-la-Chapelle at the time of its construction, it is not strange that its plan should have been imitated more or less exactly, not only during the lifetime of its founder, as at Nymwegen, but also in later years. According to ancient descriptions, the Court Chapel which was built by Louis the Pious at Diedenhofen (Thionville or Theodonis Villa), was a reduced copy of the minster, and the same was probably the case with the Church of St. Walburgis in Groeningen. The design was repeated in the choir of the nuns in the Abbey Church of Essen, which was founded in 874 and rebuilt after the fire of 947. Only the central division of the apse now remains in its original form (*Fig. 114*). The stories which are indicated by the columns standing in the arches

are not fictitious, as at Aix-la-Chapelle, the building being provided with a double gallery. It is worthy of note that the polygon does not reach the height of the main arch, and is hence surmounted by a conch, which intersects with the extrados of the subsidiary arches,



Fig. 114.—Restored View of the Choir of the Nuns in the Abbey Church of Essen.

replacing the spandrels. The circular structure of the Church of St. John at Liege, built by Bishop Notker in 981, exhibits similar reminiscences, notwithstanding its reconstruction in the rococo style of the eighteenth century. The choir of the nuns in the western tower of the Romanic Church of St. Mary of the Capitol in Cologne, which was dedicated in 1050, displays the same influence, one of its arches, now hidden by the organ, having columns arranged like those of the Minster of Aix-la-Chapelle. The closest resemblance to the plan of the minster is the polygonal church of Ottmarsheim, near Muehlhausen, in Elsass, which dates from the same period as the last-mentioned

church of Cologne (*Figs. 115 and 116*).

On the other hand, the Church of St. Germigny-les-Prés in the Department of Loiret, which is mentioned in the tenth century as an imitation of the Carolingian court church, differs from it in many respects, and by its cruciform plan rather resembles

the ecclesiastical edifices of Byzantium. This building, erected by Bishop Theodulph of Orleans during the lifetime of Charlemagne, has a double interest, being the prototype of St. Front in Perigueux, and of other buildings of France which are of this peculiar disposition, and displaying in the apses of the transepts an arrangement of plan similar to that which appears fully developed in the Church of the Apostles and in that of St. Mary of the Capitol in Cologne.

The many churches and cloisters which were built during the epoch of Charlemagne were generally imitated from Italian and more especially Roman models. This was the case with the two most important French convents of that time—Centula (St. Riquier) in Picardy, and Fontanelum (Vandrilie) in Normandy, both enlarged and reconstructed by friends of the emperor: the former by Angilbert, the latter by Ansegisus. The convent churches, which were numerous—Vandrilie, for instance, possessing not less than



Fig. 115.—View of the Interior of the Church of Ottmarsheim.

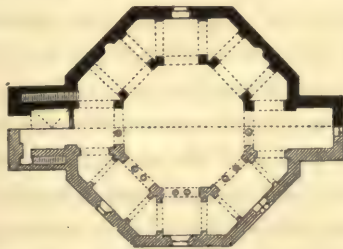
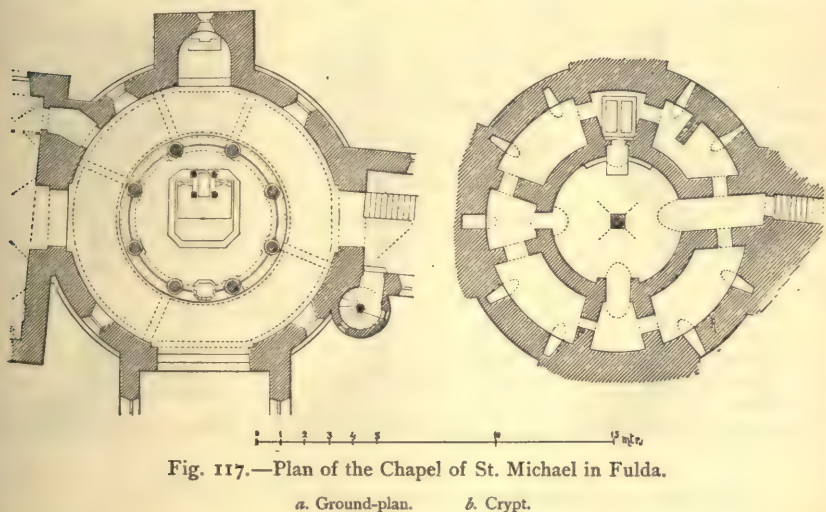


Fig. 116.—Plan of the Church of Ottmarsheim.

eight—were usually large basilicas. In Germany, Fulda and St. Gall corresponded in importance to the before-mentioned cloisters in France; they are of superior interest, because known to us through especially explicit and trustworthy descriptions.

The Convent of Fulda, under the Abbot Sturmius, a pupil of St. Boniface, was the most important establishment of its kind in Germany, even at the time of the accession of Charlemagne. Baugulf, the successor of Sturmius, was obliged because of the increasing population of Fulda to enlarge the Church of the Saviour by an extension upon the eastern side and by a transept; while Ratgar, who was created abbot in 803, and who had previously been employed as an architect, added a western apse, devoting so much attention to these constructions that the wearied monks revolted against being continually employed as masons. We have no certain knowledge as to when and where the important innovation of the double choir, retained in the larger churches throughout the entire Romanic epoch, was introduced, but we may assume the work of Ratgar to have been the first step in this direction. It is difficult to decide whether the western apse was originally intended as the tomb of the founder of the church,—like that of St. Boniface in Fulda, and that of the Basilica of St. Reparatus at Orléansville, in Africa, which was added as the mortuary chapel of a bishop,—or whether this duplication was designed to provide two main altars, consecrated in honor of two patrons. Perhaps the fact that the cloisters adjoined one of the long sides of the basilica led to the treatment of the other as the chief façade. Many Romanic churches had their main portal in this position, in which case it was natural to develop the plan of the two ends entirely alike. The greatly increased number of the clergy in the cloisters and the churches of the bishoprics rendered it necessary, moreover, to duplicate the centres of the religious ceremonies by providing two altars. An important alteration of the general arrangement was made by elevating the choir, and constructing beneath it a crypt, containing an altar. This disposition first appeared in St. Gall, but was adopted as early as 819 at Fulda, in both ends of the basilica, the tomb of St. Boniface, which was much frequented by pilgrims, corresponding to the altar and reliquary of the eastern crypt.

The example presented by the baptisteries and mortuary rondas which had been adjoined to the larger basilicas of Italy led to the addition of domed edifices to the more important cloisters. Such a structure appears in the primitive plan of Fontanellum. A vaulted hall of a similar kind was built in 820 in the Convent of Fulda (*Fig. 117*), under Eigil, the fourth abbot of this establishment, probably having been founded by Rabanus Maurus, a great patron of the arts, who died in 856 as Archbishop of Mayence. It was originally intended as the tomb of the abbots, and was without doubt built in imitation of the Church of the Holy Sepulchre at Jerusalem,



and of such concentric structures as the Church of St. Luke, recently discovered in the neighborhood of Ephesos, perhaps also being influenced in some degree by the Constantine funeral monuments and baptisteries of Rome. At all events, the building has no resemblance to the Byzantine cupolas of Ravenna. The cylindrical wall of the central space, upon which rested the dome, is supported by eight columns, with capitals of the Corinthian and composite orders (*Fig. 118 a and c*), connected by archivolts. Beneath this superstructure was a crypt of equal diameter, in the middle of which a thick column, roughly imitating the Ionic forms (*Fig. 118 b*), supported the encircling barrel-vault; similar vaults covered the surrounding

passage. Notwithstanding later additions and reconstructions, the plan and details clearly exhibit the influences of the early Christian art of Italy.

Even more important than the Convent of Fulda was that of St. Gall, the buildings of which have, indeed, experienced so many alterations that no understanding of its original arrangement can now be obtained from them, but which nevertheless, through the discovery of the original plan, has become the best-known cloister of the Carolingian epoch. This design appears not to have been entirely carried into execution, perhaps because of difficulties presented by

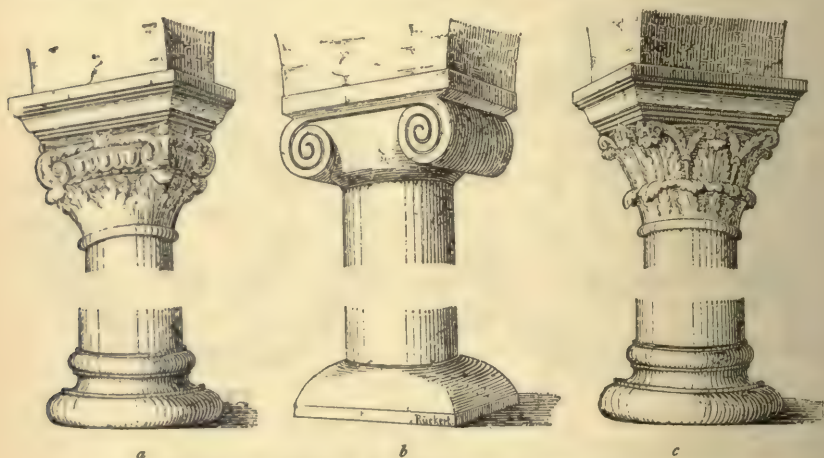


Fig. 118.—Details of Columns from the Chapel of St. Michael in Fulda.

the conformation of the ground, yet it is nevertheless of the most signal importance to architectural history. St. Gall had somewhat declined with the increasing prosperity of Fulda, but, through the patronage of Louis the Pious, its abbot, Gozbert, A. D. 816 to 832, was enabled to undertake an extensive reconstruction, for which the plan in question was drawn by an anonymous architect, who very possibly had stood in some connection with the establishment of Fulda. The large drawing upon two sheets of parchment (*Fig. 119*) displays, in the characteristic draughtsmanship of the Carolingian epoch, all the complicated arrangement of a cloister of that period. The main approach leads between a variety of farm buildings to the

western front of a large basilica. This is provided with two choirs, like that of Fulda, and with two towers, disposed symmetrically at

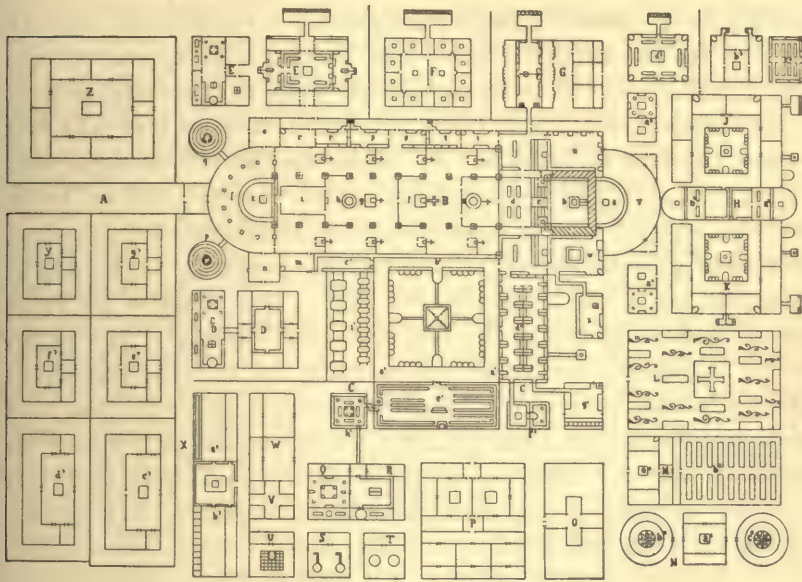


Fig. 119.—The Carolingian Cloister Plan of St. Gall.

- | | | |
|--|--|---|
| <i>A.</i> Principal Entrance. | <i>δ¹</i> . Chapter-house. | <i>L.</i> Cemetery. |
| <i>B.</i> Principal Church. | <i>c¹</i> . Conversatorium. | <i>M.</i> Garden. |
| <i>a.</i> Altar of St. Paul. [lus. | <i>d¹</i> . Dwelling of the Monks. | <i>a²</i> . House of the Gardener. |
| <i>b.</i> Altar of St. Mary and St. Gal- | <i>e¹</i> . Refectory. | <i>b²</i> . Vegetable Garden. |
| <i>c.</i> Entrance to the Crypt. | <i>f¹</i> . Lavatory. | <i>N.</i> Poultry-yard. |
| <i>d.</i> Choir for the Singers. | <i>g¹</i> . Latrines. | <i>a³</i> . House of the Keeper. |
| <i>e.</i> Pulpit. | <i>h¹</i> . Kitchen. | <i>δ²</i> . Hennery. |
| <i>f.</i> Altar of the Cross. | <i>i¹</i> . Cellar and Storehouse. | <i>c²</i> . Goosery. |
| <i>g.</i> Altar of St. John. | <i>D.</i> House for Mendicants and | <i>O.</i> Barn. |
| <i>h.</i> Baptismal Font. | Pilgrims, with Kitchen and | <i>P.</i> Dwelling of the Artisans. |
| <i>i.</i> Western Choir. | Brewery. | <i>Q.</i> Brewery. |
| <i>k.</i> Altar of St. Peter. | <i>E.</i> House for Guests, with Kitchen, | <i>R.</i> Bakery. |
| <i>l.</i> Western Paradisus. | Cellar, Brewery, and Bakery. | <i>S.</i> Stamping-mill. |
| <i>m.</i> Almonry. | <i>F.</i> School-house. | <i>T.</i> Grinding-mill. |
| <i>n.</i> Vestibule for the Brethren. | <i>G.</i> Dwelling of the Abbot, with | <i>U.</i> Oast. |
| <i>o.</i> Vestibule for the School Chil- | Kitchen, Cellar, and Bakery. | <i>V.</i> Barley-mow. |
| dren. | <i>H.</i> Double Chapel. | <i>W.</i> Cooperage and Turners' Work- |
| <i>p.</i> Tower of St. Gabriel. | <i>a²</i> . Chapel for the Novices. | shop. |
| <i>q.</i> Tower of St. Michael. | <i>δ³</i> . Chapel for the Sick. | <i>X.</i> Stables. |
| <i>r.</i> Doorkeeper's Lodge. | <i>γ.</i> Infirmary. | <i>a⁷</i> . Stalls for Horses. |
| <i>s.</i> Prefect of the School. | <i>a³</i> . Kitchen and Bath. | <i>δ⁷</i> . Stalls for Oxen. |
| <i>t.</i> Waiting-room for Guests. | <i>b³</i> . Dwelling of the Physician. | <i>c⁷</i> . Cow-house. |
| <i>u.</i> Library and Writing-room. | <i>c³</i> . Garden for Medicinal Herbs. | <i>d⁷</i> . Studdery. |
| <i>v.</i> Eastern Paradisus. | <i>d³</i> . House for Cupping and Pur- | <i>e⁷</i> . Pen for Goats. |
| <i>w.</i> Sacristy and Vestry. [ments. | gation. | <i>f⁷</i> . Pigsty. |
| <i>x.</i> Tabernacle for the Sacra- | <i>K.</i> School for the Novices. | <i>g⁷</i> . Sheepfold. |
| <i>C.</i> Convent. | <i>a⁴</i> . Kitchen and Bath for the | <i>Y.</i> Dwelling of the Servants. |
| <i>a¹</i> . Cloister. | Novices. | <i>Z.</i> Cart-house and Warehouse. |

either side of the entrance, and but slightly connected with the church itself. The towers are among the earliest structures of their kind known, inasmuch as the date of the oldest campaniles of Ravenna is by no means certain, while the towers mentioned in A. D. 575 and 734 as existing at Laon and Fontanellum appear to have been nothing more than small belfries. The employment of bells cast of bronze, in place of the former bells of sheet iron, had first become common in Italy, and was introduced by Charlemagne into Aix-la-Chapelle and Fontanellum. This naturally led to a further development of the towers, both in number and dimensions, their chief purpose, however, long remaining that of barbicans, as especially noted on the plan of St. Gall. The altars of St. Peter and of St. Paul, placed in the opposite apses, and the crypt of St. Gallus, underneath the eastern choir, make it clear that this duplication resulted from the combination of two older churches and the retention of both their patrons. In this connection it is to be remarked that the wide passages around the two apses were not reckoned as part of the sanctuary. The northern side of the church adjoined the dwelling of the monks, as yet not divided into cells; farther to the west was the house for mendicants and pilgrims. Upon the north was the dwelling of the abbot and the hospitium, upon the east the double chapel for the use of the sick and the novices. On the left of this was the infirmary and its dependencies, on the right the school for the novices and the cemetery. This main complex was bordered on the south and west by the extensive enclosures and buildings of the farm: vegetable garden, poultry yard, barn, workshops, bakery, brewery, mills, oast, stables, dwelling of the servants, warehouse, etc.

Unfortunately, the plan leaves us in the dark concerning many technical points of the greatest interest. The more important buildings may be supposed to have been of stone, while the stables, barn, etc., were of wood. With the exception of the crypt and the apses, a vaulted construction does not appear to have been adopted. The timbered roofs were covered with shingles, or with a thatch of reed or straw. The dormitory was heated by a hypocaust, while stoves are shown by the plan to have stood in the corners of the living-rooms, the smoke probably not being car-

ried off through the roof by means of chimneys, but through apertures in the walls covered by hoods. When the hearth was placed in the middle of the room, the smoke, without doubt, escaped through an opening in the roof directly above it, this being protected by a second and smaller roof, supported upon four posts, after the manner of the Italian cavædium. We have no adequate knowledge in regard to the arrangement of windows, although a kind of triforium appears in the dwelling of the abbot, the school of the novices, and especially in the main passage of the cloisters. The part of the building last named forms a transition between the peristyle courts of the classic styles and the arcades of small columns common in the Romanic epoch.

We have less information concerning a third convent of the Carolingian epoch, that of Lorsch, formerly Lauresham, near Worms, on the right bank of the Rhine; but some idea of its importance can be gained from the fact that Louis the German and Louis III. are said to have been buried in the "variegated" church, built by the latter between 876 and 882 at that place,—since this evidently cannot have been the chief basilica of the cloister. An interesting portal, apparently belonging to this building, dating, at all events, to the close of the ninth century, has remained in an exceptionally fine state of preservation (*Fig. 120*). This hall, but little over 10 m. long and 7 m. deep, was transformed at a later period into a chapel. The three arcades of its lower story, resting upon piers and ornamented with engaged columns, and the ten pilasters of the upper story supporting gables in relief, offer a striking resemblance to the antique portals of Verona, Spalatro, Treves, etc. The classic designs are imitated with great technical ability and thoroughness, the helplessness noticeable in the details of the Minster of Aix-la-Chapelle being here entirely overcome. On the other hand, the builders had not attained to a full understanding of the correct proportions and forms of the architectural members. The engaged columns are too high for the arcades, and their composite capitals are excessively attenuated (*Fig. 121*), while the pilasters of the upper story are too short and their capitals too low. The checkered pattern of the wall surfaces is coarse and of bad effect, and the zigzag of small gables is a barbarous substitute for the arcades in

relief of the age of Diocletian. Notwithstanding all this, the portal façade of Lorsch is to be esteemed as the last great work of classic art.

Little or nothing has remained of the other creations of the Carolingian epoch. There are but few vestiges of the Church of Michelstadt in the Odenwald, consecrated to the Virgin in 821, and founded by Eginhard, whom Louis the Pious had endowed in 814 with the estates of the crown near Michelstadt,—although it may be assumed that the ruin of the Basilica of Steinach, near the

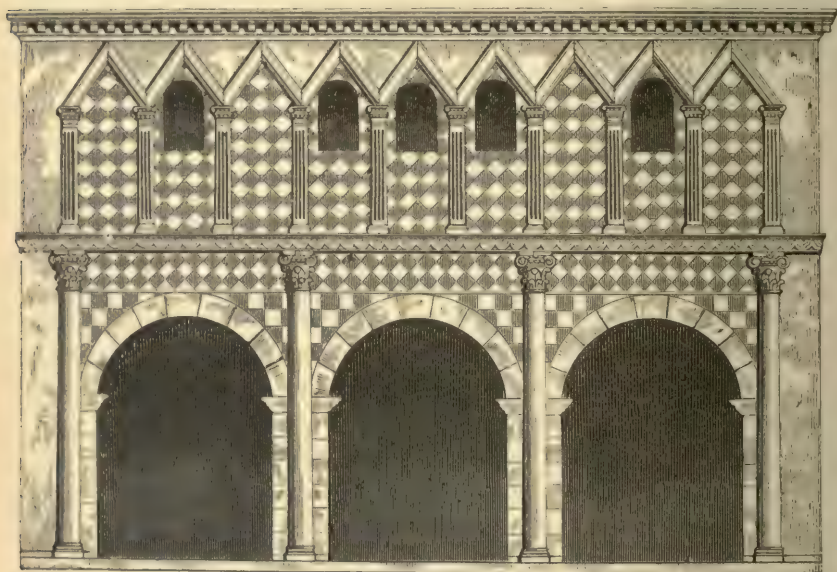


Fig. 120.—Portal of the Cloister of Lorsch.

before-mentioned town, is identical with it. Later reconstructions have left little of the original building, the crypt and the side apses, as well as the portals, being of the Romanic style.* The case is similar with the Church of St. Peter and St. Marcellinus at Seligenstadt, built by Eginhard in the year 828. The old Cathedral of Cologne, begun in the year in which Charlemagne died, and finished in 873, has entirely disappeared; its plan, with two choirs

* G. Schaefer, *Zeitschrift f. b. Kunst*, ix., 129, etc.

and with two round wooden towers before the western apse, must have resembled that of St. Gall, and leads us to suppose that it was influenced by the traditions of Fulda. Among the other constructions of the Carolingian epoch may be mentioned the Minster of St. Mary in Strasburg, the Cathedral of St. Peter and St. Paul at Worms, the Basilica of St. Dionysius outside the same town, the rebuilding of Reichenau, and of the Church of St. Afra in Augsburg which had been destroyed by the Avars, and the chief minster of Ratisbon, founded in 831 by Emma, the wife of Louis the German. The episcopates of Saxony at this period offer no architectural monuments which can be at all compared with the buildings of Charlemagne. The houses and churches of Muenster (Miningarneford), Osnabrueck, Paderborn, Mersberg (Eresburg), Minden, Bremen, Werden, Hildesheim, Halberstadt, and Hamburg appear to have been almost entirely of wood. The Saxon cloisters at Herford, Lammspringe, Gandersheim, etc., were all founded after the death of Charlemagne, and long remained inferior to the Frankonian, Hessian, and Alemannic establishments. Corvey, on the Weser, was of more importance, having been founded as a branch of the French Corbie under Louis the Pious, and built in 822 on its present site. But only the western part, a hypostyle hall between two towers of square plan, remains of the original construction. The short and thick shafts of its four central columns are surmounted by capitals which reproduce the Corinthian forms so exactly that they cannot be attributed to the Romanic epoch. They are provided with classic impostes which, although much debased, are evidently copies of the mouldings of a Roman entablature,—distinctly displaying the astragals, dentils, and modillions of the Corinthian style (*Fig. 122*). The cornices of the piers in the hall above, and the small Corinthian columns in the apertures of the third story, are readily distinguishable from the Romanic forms of the later superstructure of the tower, which was probably added in 1075 by the abbot Saracho.



Fig. 121. — Pilaster Capital from the Portal of Lorsch.

After the fall of the Carolingian dynasty circumstances became decidedly unfavorable for architecture. The stone bridge over the Rhine near Mayence, which had been built in considerable part by Charlemagne, was neglected; and for more than a thousand years after his death there was no serious attempt to carry out his plan of connecting the Main and the Danube with a canal. New cloisters were but rarely founded, and many of the older establishments were suspended. The only requirements of the time were strong walls, to protect the dwellings during the civil dissensions brought about by the constantly changing authorities, and to fortify the

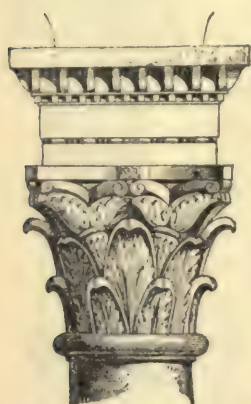


Fig. 122.—Capital and Impost from the Western Wing of the Cloister Church of Corvey.

cities against the invasions of the Germanic lands by the barbarous Normans from the North, and by the Slavonic and Hungarian races from the East. Princes and nobles were more and more inclined to build their strongholds upon steep heights, while the lower classes, who had been at first so widely distributed throughout the country, became more and more accustomed to unite their forces in walled towns. The building of fine churches, cloisters, and palaces was not possible in these times of general distress. Art was even more neglected than it had been under the last Merovingians, and for a period longer than that before the accession of Charlemagne, for the establishment of the German monarchy did not lead at once to a revival of monumental architecture. The tenth century was drawing to its close when a new and more significant artistic style appeared in Saxony and upon the banks of the Rhine.

The Germanic races had no sculpture of their own at the time when they were first brought into contact with the Romans. The hideous puppet-like idols which appeared here and there do not deserve to be classed among works of art any more than do the ornamental carvings of the wooden beams with which the ancient Germans built their dwellings. When these Northern invaders en-

tered Italy or other Roman provinces, they consequently employed native artists to execute for them the few works of sculpture which they desired.

This is known to have been the case with Theodoric, King of the Ostrogoths, between 493 and 526,—the only ruler of the northern barbarians before Charlemagne who did much to further art. His court sculptor Daniel was an Italian, and Cassiodorus does not lead us to believe the other artisans employed by the king, among whom are especially mentioned sculptors of marble and founders of bronze, to have been foreigners. It certainly cannot be assumed that the portrait statues of Theodoric, which were added to the host of works of this kind in Rome, were executed by any but Roman sculptors, or that they differed in artistic character from the statues of Theodosius, Honorius, Valentinian III., etc., otherwise than was to be expected from the continual decline of art from decade to decade. The equestrian statue of Theodoric upon the Bridge of Augustus at Ravenna,* carried off by Charlemagne, and probably re-erected upon the square before the Palace of Aix-la-Chapelle, must have resembled that of Marcus Aurelius in Rome, notwithstanding the shield and spear with which it was provided. This similarity was particularly remarkable in the so-called Regisole of Pavia, unfortunately destroyed by the French in 1796, which many authorities have identified with the equestrian statue of Ravenna. It is plain that the custom of erecting portrait statues of princes was continued among the Ostrogoths in later times from the statement made by Procopius that Theodatus, the successor of Theodoric's daughter Amalasuntha, had the presumption to place statues of himself upon the left of those of the emperor Justinian.

A similar state of things appears to have obtained among the Lombards, although in general this barbarous people cared less for art. It is possible that the before-mentioned equestrian statue, the so-called Regisole in Pavia, the capital of the Lombards, was the portrait of one of the rulers of this dynasty; for although a

* C. P. Bock, Die Reiterstatue des Ostgothenkönigs Theoderich. *Jahrb. des Vereins von Alterthumsfreunden im Rheinlande.* 1844.—W. Schmidt, Ueber das Reiterstandbild des Königs Theoderich. *Zahn's Jahrb. f. Kunstwissenschaft.* 1873.

woodcut of this figure made in 1505 shows it to have resembled the statue of Marcus Aurelius, connoisseurs at the time of Winckelmann were undecided whether to consider the work as a production of the age of the Antonines, or as a "*lavoro mediocre de' bassi tempi*." If we may assume the Regisole to have been executed after the sixth century, the divergent opinions concerning it would prove the sculpture of the period in question to have presented that combination of technical and stylistic debasement with the imitation of Roman works of the best epoch which is characteristic of the previous centuries of artistic decadence. Otherwise there are no vestiges of monumental sculpture among the Lombards.



Fig. 123.—Relief from the Front Side of the Altar of Duke Pemmo in the Church of St. Martin in Cividale.

Reliefs of stone, the age of which is assured, like that now preserved in the Cathedral of Monza, dating to the time of Queen Theodelinde, or those on the four sides of the Altar of St. Martin at Cividale in Friuli,* which was founded by the duke Pemmo about A.D. 730

(Fig. 123), are extremely rude and provincial; while others, like the figures in high stucco relief in the chapel of the Nunnery at Cividale, are direct imitations of Byzantine paintings similar in style to the figure of St. Agnes in the Church of S. Agnese in Rome. It is also plain that the carvings of ivory, much in vogue at the time, followed the traditions of Italy, and especially of Rome, while the works of precious metals were more influenced by the artistic methods of Byzantium. In the former the decadence is more evident, in great measure because of the difficulty presented by

* R. Eitelberger, Cividale in Friaul und seine Monumente. Jahrb. der k. k. Central-commission zur Erforschung und Erhaltung der Baudenkmale. II. Wien, 1857.

the representation of the human figures which continued to be introduced into the designs of ivory carvings, while the jewelry was almost entirely restricted to geometrical ornaments and to incrustations of precious stones. In the so-called Pax, in the archive of the Chapter-house at Cividale (*Fig. 124*), which was made in the eighth century for the duke Ursus of Ceneda, the silver border is of less interest than the relief. In other specimens of goldsmiths' work the tasteful and simple designs and the great delicacy of execution command our admiration, especially those which are proved by Latin inscriptions not to have been imported from Byzantium, and not to have been executed by Byzantine immigrants. Among these may be mentioned the magnificent cover of a copy of the Gospels in the Cathedral of Monza, which, according to an inscription, was the gift of Queen Theodelinde. The gold filigree-like borders of its enamel display simple linear ornaments, without reminiscences of the antique patterns, while the chief effect is obtained by a studding of precious stones, pearls, and antique cameos.



Fig. 124.—So-called Pax of the Duke Ursus in Cividale.

More significant than these works, which rather deserve to be considered as the last efforts of the expiring art of antiquity, are the memorials of the Northern races of this epoch. Three great currents are here recognizable, from the confluence of which the characteristics of northern art resulted, local and national peculiarities being determined by the relative importance of these elements. One of these can be traced to the most remote ages,—namely, to the commercial voyages of the Phœnicians, who brought

wares of beaten metal to all the coasts of Northern Europe in exchange for tin and amber. The empaistic style of these works was succeeded by the artistic methods of Rome, which entirely obliterated the traces of the Phœnician imports in all the provinces of the Empire, but which were less dominant in the north-eastern lands of Europe, notwithstanding the fact that Roman works were carried by traders to the most distant regions. Between the two there sprang up a most important indigenous style, based upon the designs of braided work, which was neither exclusively Celtic nor Germanic, but common to all the lands of the North.

This plaited work was of the same importance to the races of Northern Europe as weaving and embroidery to the Asiatics, from which the textile ornaments of Mesopotamian, Lycian, and Arabian architecture had been derived. The braiding of hair, baskets, satchels, mattings, and the like, was chief among the employments of the women of the North. Braided rushes, swamp-grasses, and osier, the hair of women and horses, or strips of the skin of animals, took the place of the embroideries of Arabian deserts. Thus it is not strange that imitations of the designs of these works should have decided the most characteristic patterns of the North, appearing at first in the carvings of wooden architectural members, in the decorations of utensils of metal, when it became possible to manufacture these articles instead of importing them from the Phœnicians and Romans, and finally in the stone sculptures of monumental art.

In view of the perishable nature of the materials of which these braided and woven works were originally formed, it is not surprising that the only vestiges of them now remaining should be the products of a comparatively recent age; nevertheless there are in Ireland some few specimens of this manufacture, intended as the cases of valuable books or liturgical vessels, dating from the earliest time of the Middle Ages, the ingenious work of which indicates a long previous practice. We have no examples of those "representations of worms," *i. e.*, borders embroidered with intertwined patterns, the application of which to ecclesiastical vestments St. Boniface censured as heathenish. Even wooden carvings of this style have become rare, with exception of the shoe-

shaped tablets found in the Black Forest in connection with the so-called *Todtenbäume*, or coffins cut longitudinally from the trunks of trees, and hollowed out for the bodies. Vermiculated ornaments are mentioned as having been employed upon the timbers of houses, and it is evident that drinking-vessels carved or turned of wood, and inlaid with gold and jewels, were regarded as princely gifts.

The most important remains of the Northern art of this epoch are the objects of metal. The most ancient of these display but few traces of the imitation of braided work, being decorated by simple figures and linear patterns. This is the case with the arms and ornaments found at Tour-nay, in the grave of the Merovingian king Childeric, who died in the year 481. Particularly noticeable among them is the sword, with an enamel of red flux in the cells formed by soldered threads of gold, the design of which is of extreme simplicity (*Fig. 125*). The double-handled chalice with its oblong stand of gold, which was found at Gourdon near Chalons, and probably was a votive offering from Sigismund, king of Burgundy, who died in A. D. 524, is of a similar style, but of superior design. The treasure discovered at Fuente de Guerrazar, near Toledo, is far more important. The fine crown (*Fig. 126*) belonging to it is unquestionably that of Reccesvinthus (*Recesuinto*), king of the Visigoths A. D. 649 to 672, the letters forming his name being suspended by chains around the rim. The manner of mounting the pearls and jewels, the wheel-shaped ornaments, etc., closely resemble the before-mentioned cover of the Gospels which belonged to Theodelinde, queen of the Lombards, and it is to be assumed that this crown was executed in Italy under the influence of Byzantium, or at least by an artist who had been trained in that school. In the book of laws of the Visigoths mention is made of "transmarine" merchants who dealt in works of gold and silver, rich garments, and other adornments, and Gregory of Tours



Fig. 125. — Sword of King Childeric, now in the Louvre.

relates that in the time of the Merovingians foreign traders sold similar articles in Paris. It is evident, however, that the demand of the French for such minor works of art was not entirely supplied by imports from abroad, for St. Eligius, who came to Paris from Limoges at the beginning of the seventh century, was highly esteemed at the Merovingian court for his works in precious metal.



Fig. 126.—Crown of Recceswinthus, King of the Visigoths, now in the Musée Cluny, in Paris.

In the entire lack of examples we are not able to tell whether these products were of the Byzantine and Italian styles, or whether native designs were employed. Metal works decorated with braided patterns do not appear before the seventh century, and seem to have originated in the northern countries, which were little influenced by the Romans.

In the course of the eighth century this industry assumed most important dimensions. The fibulas, or brooches (*Fig. 127*), which among the ancients took the place of buttons and of hooks and eyes, became more and more elaborate, all their surfaces showing endless variations of the same intertwined ornaments of braids, loops, knots, etc. The peculiar character of the slit and interwoven leather straps, which served as a model for these designs, is retained throughout, being evident even when animal forms are adopted for the ends. The heads of serpents lent themselves most nat-

urally to this employment, but the figures of other animals, in monstrous contortions, were also introduced. In general the national art of the early Germans avoided the representation of the human form; this is evident in the so-called *Regenbogenschuesselchen*, bracteate coins of gold and silver which were stamped with

the figures of animals. In the provinces occupied by the Romans the debased forms of the Byzantine mintage continued to be imitated.

In the few cases where human figures were introduced recourse was had to the Byzantine prototypes. This is evident in the celebrated chalice (*Fig. 128*) of gilded copper in Kremsmuenster, which was given by the last Agilolfing duke of Bavaria, Thassilo, to the cloister founded by him in that place A.D. 772. Moreover, the clumsy shape of the chalice is entirely different from antique vessels of this kind, rather resembling the turned and carved cups of wood which have been mentioned above as peculiar to the North. The decorations which surround the few breast-pieces and cover the entire remaining surface display, on the other hand, the fantastic intertwined forms of the North, without a trace of the classical patterns.

Charlemagne himself desired less to further the development of a national art than to rehabilitate the Roman traditions. He removed the statue of Theodoric from Ravenna to Aix-la-Chapelle, not only because of his admiration for the great ruler of the Ostrogoths, but because of his interest in transforming his northern capital to a new Rome by the help of the masterpieces of Italian art. He could not raise monumental sculpture to its former importance, but he erected founderies and workshops for the manufacture of architectural ornaments. The Minster of Aix-la-Chapelle still preserves the four bronze doors which were cast during his reign, as well as the balustrades of the gallery; both of these were direct imitations of antique models, from which they are to be distinguished only by the inexperienced workmanship and inferior design of their decorative details.



Fig. 127.—Brooch of German workmanship dating to the eighth century; found at Wittislingen. Now in the National Museum of Munich.

Gold and silver smiths must also have been employed at Aix-la-Chapelle as well as bronze founders, for Charlemagne, following the taste of his time, took great delight in works of precious metals and jewelry. Most of these were imported from Italy and from Byzantium; still, a considerable industry in these branches was carried on in Aix-la-Chapelle itself, under the direction of Eginhard and Ansegius, the friends of the emperor. The same was the case in the larger cloisters, St. Denis having been celebrated for its works of gold. The imperial mint deserves to be mentioned

in this connection, although the Carolingian coins were certainly not of great artistic value, displaying only rough legends and rude symbols.

It cannot be denied that the Carolingian works of precious metal were decidedly inferior to the Byzantine models. They were far from attaining to the artistic eminence of one of the contemporary works of Italy, the magnificent revetment of the altar of S. Ambrogio in Milan, dedicated in 827 by the archbishop Angilbert, and executed by Master Wolvinus, whose name leads us to think him a German. The workmanship of its gilded sheets



Fig. 128.—The Chalice of Thassilo in Kremsmuenster.

of silver rivals the best contemporary products of Byzantium, while the figures, in correctness and beauty of form, and in facial expression, far surpass all other works of the kind which have been preserved from this period.

Ivory carvings in relief continued greatly in vogue, yet but few of them can be accurately dated. Among these the two reliefs executed by the versatile monk Tutilo of St. Gall, who died in 915, are particularly adapted to convey a distinct conception of the tendencies of Carolingian art (*Fig. 129*). Antique reminiscences

are evident in the allegorical figures of Sol, Luna, Oceanus, and Tellus; the Evangelists resemble ancient philosophers, while the Christ and the cherubim distinctly display the influences of Byzantium. Nevertheless, the composition is original in many respects, and the action of the figures is lifelike, often even exaggerated, as in the case of St. Mark, who is represented as cutting a calamus. The diptych of Tutilo, however, must have surpassed the other works of this epoch, as did his fame as an artist that of all his contemporaries.

The mosaics of Ravenna executed during the domination of the Ostrogoths, such as those in the Baptistery of the Arians (S. Maria in Cosmedin), and in S. Apollinare nuovo, the court church of Theodoric, are only to be distinguished from the works of the Italians preceding and following that epoch by the steady decline of the artistic style. The portraits of Theodoric in mosaic,

known to have existed at Ravenna, Pavia, and Naples, can have presented no peculiar characteristics, and must in many respects have resembled the images of Justinian (compare *Fig. 50*). The superiority of the mosaics of Rome in the seventh century over those of Byzantium must have been of influence upon the Lombardic art, and have been apparent in its chief works: the painted decorations of the palace of Theodelinde at Monza, with representations of the warlike deeds of the Lombards,—the mosaics of the Basilica of Olona, A. D. 712 to 743,—those dating to the seventh or eighth century in Gravedona, on the Lake of Como,—and the paintings with



Fig. 129.—Relief of Ivory, the work of the monk Tutilo of St. Gall.

which Duke Anthimus adorned a church in Naples. Nothing has remained of all these. Their loss to the history of art is comparatively small, inasmuch as the paintings and mosaics of both the Ostrogoths and the Lombards may be assumed to have been executed by Italians or by Byzantines.

Monumental paintings appeared among the Visigoths and the Franks as early as did the building of churches. Gregory of Tours mentions them as common in the fifth and sixth centuries, and gives an account of mosaics in Cologne which conferred upon a church of that city the name "*ad sanctos aureos*." In the second half of the seventh century painters were brought to England from Italy, which fact points to the introduction of ecclesiastical paintings among the Anglo-Saxons at this time, as well as to the lack of trained artists in Gaul. The only memorials of this art referable to the Merovingian epoch are a few manuscripts of the Franks and Visigoths, in which the designs are restricted to the initials. Their simple outlines show the first employment of the forms of fishes or birds as parts of letters, these primitive illuminations hence being designated as *ornithoidic* or *ichthyomorphous*. The increasing ability of the scribes added to these the figures of climbing quadrupeds, generally of a monstrous character, such as dragons and the like, frequently combined with an interwoven strap-work. The first attempts are little more than a florid writing, colors only being used sparingly to enhance the effect of the penmanship.

In contrast to these beginnings of figure-painting, the illuminators of the Irish cloisters* endeavored to introduce into their calligraphic decorations the designs of the ancient Celtic braided work. Ireland appears to have been Christianized as early as the middle of the sixth century, and, favored by the position of the island, the development of its civilization was exceptionally undisturbed. Its ornamental painting far surpassed that of all the other countries of the North in careful and intelligent treatment of outline and colors. The Irish missionaries in England, France and Switzerland, South-

* J. O. Westwood, *Fac-similes of the Miniatures and Ornaments of Anglo-Saxon and Irish Manuscripts*, London, 1868.

western Germany, and even in Lombardy, carried the illuminated manuscripts throughout a large part of Europe. Almost as many have been preserved in the cloisters of the Continent as on the island itself, these being more frequently referable to wandering Irish illuminators, and to the cultivation of the artistic traditions which they introduced by the brethren of the foreign cloisters, than to the exportation of Irish products. In such works whole pages of the most laborious and intricate interwoven patterns of strap-work and animal forms are added to the braided designs of the initials (*Fig. 130*). The decorations are rendered attractive by their ingenious composition, exact drawing, and rich coloring, but the representations of human figures which occur in these illuminations are frightful attempts to adapt its forms to the braidings and twistings of the calligraphic designs. The natural shapes and proportions are entirely neglected, while the garments and extremities are contorted in the most fantastic manner, so as to reduce the whole figure to an ornamental problem (*Fig. 131*). Fortunately the Germanic races of England and of the Continent which had been converted by the Irish missionaries did not entirely adopt these barbarous artistic methods,—possible only among a people wholly uninfluenced by classic culture. This is proved by the Book of St. Cuthbert, now in the British Museum, which was written between 687 and 698 in the cloister of the English island Lindisfarne: while its ornaments are entirely Celtic, the human figures, though rude, show a striving



Fig. 130.—Miniature from the Gospel of Durrow, seventh century. Trinity College, Dublin.

after realism which contrasts strongly with the methods of the Irish illuminators.

In painting, as in all other branches of art, the accession of Charlemagne resulted in an increased activity, which was in this case of exceptionally long duration. Although the Emperor desired rather to renew antique traditions than to lay the foundation of a national and independent art, yet in painting he opened the way for new elements,—capable even of a greater development

than it was possible for them to attain in the troublous times of the ninth and tenth centuries. The religious and monumental works of this period must have been least affected by this peculiarly Germanic movement. The large mosaic which ornamented the dome of the Minster of Aix-la-Chapelle until the beginning of the last century was probably either imported altogether, or was executed by Italian mosaic-workers who had immigrated to the northern capital. Consequently it must have exhibited a Byzantine style similar to that of the mosaic in the niche of the choir of S. Ambrogio in Milan,



Fig. 137.—St. Matthew the Evangelist, from a miniature dating to the eighth or ninth century. St. Gall.

which dates to the year 832. The religious wall-paintings of the churches and cloisters built by Charlemagne without doubt exhibited the same features. The cloisters of Fontanellum, Fulda, and Reichenau are known to have cultivated painting, and even the names of several of their artists have been preserved, as for instance, Madalulfus in Fontanellum, and Brun in Fulda. The historical scenes in the palaces of Charlemagne at Aix-la-Chapelle and Ingelheim may have been somewhat more original, although

the idea of such mural decorations may have been taken from those in the Palace of Theodelinde, Queen of the Lombards, at Monza. The Spanish wars of Charlemagne were represented at Aix-la-Chapelle, and as the types of the Moorish enemies had not occurred in Italian art, this must naturally have exercised the inventive faculties of the designer. Novel subjects were similarly provided in Ingelheim by the deeds of Charles Martell, Pipin, and Charlemagne, which concluded the historical series of episodes from the lives of Cyrus, Ninus, Phalaris, Romulus, Hannibal, Alexander, Constantine, and Theodosius.

As none of these monumental works have been preserved, we are obliged to base our judgment of Carolingian painting upon the miniatures alone.* These memorials are well adapted to convey a favorable impression of the artistic activity of the period. The simple initials in outline of the previous Frankish manuscripts, and the braided work of the Celtic illuminations, were in them supplemented by more important and elaborate lettering and by real pictures. The intertwined patterns of the North were combined with floral decorations which had been entirely lacking in the Irish illuminations,—the fundamental forms of the acanthus leaf being scarcely recognizable, and the conventionalization approaching in character to that of the foliage of the Romanic epoch. The colors were no longer limited to isolated spots, introduced to heighten the effect of the pen drawing, but were extended over the whole surface, the leaves of parchment themselves being at times dipped into a purple dye, or washed with it so as to leave only a narrow edge. The pigments most commonly used were thick body-colors, with medium local tones, the lights and shades being drawn in line, in strong contrast to the background. Gold was lavishly employed, as was at first silver, neither of which had appeared in the Irish illuminations. The harmonious general effect of the Byzantine miniatures was, however, seldom attained. The treatment of the human fig-

* J. O. Westwood, *Palæographia sacra Pictoria*. London, 1843.—H. N. Humphreys and Owen Jones, *The Illuminated Books of the Middle Ages*. London, 1849.—H. Shaw, *The Art of Illuminating as practised during the Middle Ages*. London, 1870, 2d ed.—R. Rahn, *Das Psalterium Aureum von St. Gallen*. St. Gallen, 1878.—C^{te} Bastard, *Peintures et Ornaments des Manuscrits*. Paris, s. a.

ures was midway between the antique traditions and an intelligent observation of nature, thus being superior to the Byzantine works in life and force, while inferior to them in correctness and neatness of execution, and especially in facility and general effect.

This stage of perfection was not reached until the latter half of the reign of Charlemagne. The Sacramentarium from the Abbey of Gellone near Toulouse, now in the National Library of Paris,

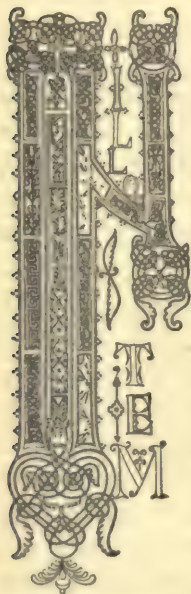


Fig. 132.—Initial IN, from the Evangelium of Godescalc. National Library of Paris.

dating to the end of the eighth century, displays ichthyomorphous initials and a simple drawing which is little in advance of the early Frankish types. An attempt to overcome the difficulties presented by the first innovations is evident in the copy of the Gospels executed in 781 by Godescalc for Charlemagne and his wife Hildegard, and given to the Abbey St. Sernin in Toulouse. This work, written in letters of gold upon a purple parchment, is now preserved in the National Library of Paris (*Fig. 132*). The artistic conception is here superior to the technical ability, the desire to give expression to individual observations and ideas being evident throughout. An advance is noticeable in the Codex Aureus of the City Library of Treves, in that of Abbeville in Paris, and in the copy of the Evangelists from St. Medard in Soissons, in the same collection.

Of a still higher character are two codices which were probably written in Tours: the Vulgata in Bamberg and the Bible of Alcuin in Zurich. The former, begun under Alcuin, the friend of the Emperor, who died in 804 as abbot of St. Martin in Tours, exhibits a marked development, which may be referred to the influence of the magnificent buildings of Aix-la-Chapelle. The calligraphic designs of the initials and borders of both are a systematic and tasteful combination of Celtic braided work with antique foliage similar to that employed in later times in the decorations of the Romanic style. In view of such works, it is not surprising that the secretaries of the Emperor were chosen from among the illuminators

of this cloister, and that the writing-school founded in Tours by Alcuin became of decisive influence throughout a wide circle. Local peculiarities, however, were observable in various cloisters, St. Denis, for instance, chiefly cultivating the Irish style, while in Metz the primitive Frankish methods continued to be practised and improved.

The care taken by Charlemagne for the further development of painting at his court and in the chief cloisters of his realm resulted in so lasting an improvement that the miniatures of his successors were superior even to those of his own time. This is evident from the codices of the emperors Lothaire and Charles the Bald. In these works the human figures are still inferior to the calligraphic ornaments, but the independence of composition which had appeared during the reign of Charlemagne is so increased as to make up for the many defects of draughtsmanship. The proportions are certainly not beautiful, being short and thick, weak in the arms and legs, the head too large, the forehead retreating, the eyes staring, the nose shapeless, the body apparently without a bony structure, the belly protruding, and the folds of the draperies too small. No attention is paid to the principles of composition or to the laws of perspective; there is no understanding of the landscape background. But notwithstanding all the exaggeration and contortions of the movements, all the sprawling and disjointed positions, a fresh originality of conception is everywhere apparent, which supersedes the effete traditions, and is always attractive because of its spontaneity of sentiment and direct observation of nature. The success of these efforts heightened the self-confidence of the artists, and extensive and varied compositions appeared in place of the few typical figures to which the illuminations had previously been restricted. This is especially evident in the magnificent codices of Charles the Bald: the *Evangelarium* and *Psalterium* in Paris; the *Codex Aureus* brought by King Arnulph in 891 to St. Emmeramus, in Ratisbon, from St. Denis, now in the library of Munich; the Bible of St. Calixtus or St. Paul in Rome, which may, however, be as late as the time of Charles the Fat, and the *Psalterium Aureum* in St. Gall, which may also be more recent. The representations of ceremonial figures or evangelists, as might be expected, follow the traditional types in many ways, but the new illustrations, although

still deficient in grace and correctness, are much more full of life and expression. A striking example of this is the picture of David with the choir of singers and musicians which is introduced into nearly all the Psalters of that period,—chief among which is that of Charles the Bald in Paris, and the *Psalterium Aureum* in St. Gall. The bending of the bodies in the ecstatic dance, the floating draperies, and the lyric rapture of David are expressed with great success, notwithstanding the many defects of drawing and coloring. Not less remarkable is a miniature in the *Codex* of St.



Fig. 133.—David feigning Madness. Miniature from the *Codex Aureus* of Charles the Bald in St. Gall.

Gall, representing the feigned madness of David when recognized at the court of Achish, king of Gath. It is difficult to imagine a more striking illustration of the words of the king to his servants: "Lo, ye see the man is mad! wherefore, then, have you brought him to me?" (*Fig. 133*).

After the middle of the ninth century the fame of the school of illuminators of St. Gall exceeded that of Tours, and until late in the tenth century the imperial secretaries were educated in the former cloister, and the manuscripts which were given as testimonies of

honor by the Carolingian rulers were executed in that place. The miniatures of St. Gall differ from those of the French cloisters, which were executed in body-colors by the employment of transparent pigments for the flesh tints and draperies, so as not entirely to hide the parchment ground. This style was cultivated during the ninth and tenth centuries in almost all the cloisters of Germany: at Worms, Hornbach, Strasburg, Beromuenster, Einsiedln, etc., St. Gall thus appearing as the centre of an important school of illumination quite distinct from that of France.

The names of some artists of this period have been handed down to us. In the *Evangeliarium* of Lothaire in Aix-la-Chapelle a monk Otto is mentioned as the scribe. In the *Codex Aureus* of Charles the Bald, now in Munich, the illuminations are stated to have been executed by the brethren Beringar and Liuthard; in the Prayer-book of the same Emperor, now in Paris, occurs the name of Liuthard alone, and in the Bible of St. Calixtus, in Rome, that of Ingobert. Wolfcoz and Folchard, the abbot Salomo, A.D. 890 to 920, Sintram, Notker Balbulus, and Tutilo were celebrated among the illuminators of St. Gall; some of their works even contain self-complacent eulogies.

The miniature-painting of the Carolingian epoch, which reached its highest development under Charles the Bald, retained its position longer than did the architecture and sculpture of that period. But after the middle of the tenth century it also was affected by the general decline. The compositions became poor and superficial, the execution careless, and wanting in understanding. Germanic culture again relapsed into barbarism: fortunately but for a short period, for a more brilliant and lasting development, that of the Romanic style, was soon to be commenced.



Fig. 134.—The Abbey Church of Laach.

ROMANIC ARCHITECTURE IN GERMANY.

THE disassociation of the German element from the French had been begun during the Carolingian epoch by the treaty of Verdun, A.D. 843, but the entire separation, destined to be of the most decisive importance upon the subsequent development of European civilization, was not carried into effect until, after the extinction of the dynasty of Charlemagne in Germany, a native ruler was elected. The tenth century was a glorious age for Germany. In striking contrast to the fierce dissensions which arose in the Carolingian family through the insatiate ambition of its members, Otto, the noble duke of Saxony, to whom the new crown had first been offered, refused to accept the great responsibility for which he considered himself incapacitated by his age, exerting his influence for the election of the Duke of Franconia, who, after an uncertain reign of seven years as Conrad I., bequeathed the succession

to his enemy, Henry the Fowler, of the Saxon house, in the noble conviction that only the most powerful of the German princes could assert and maintain so great a supremacy. The first two kings of the united realm, Henry I. and Otto I., raised Germany to the most prominent position in Europe, and their imperial successors, Otto II. and III. and Henry II., worthily carried on the great work, at least in regard to the furtherance of civilization.

The power of France and Italy declined during this period. Neither the last of the French Carolingians, nor Hugh Capet and the first rulers of his line, could successfully compete with the German kings of the Saxon house, who not only added Lorraine to their empire, and established a protectorate over Burgundy, but exercised a decisive political influence in the French court itself. In Italy the empire was renewed in an entirely different form from that which it had assumed under Charlemagne, the princes being reduced to mere vassals of the supreme German empire. Even the Pope formed no exception in this respect, as his election was made dependent upon the consent of the Emperor. England sank from the high position which it had attained under Alfred the Great and Canute, and the relations of Scandinavia with Germany were merely receptive. The only advance of civilization in Spain at this period was made in the Moorish provinces, while the success of the Christians, who were arrayed against the unbelievers, was at first uncertain. In the east of Europe the Byzantine empire dragged on its long decrepitude, severed from all connection with the culture of the Occident by the Asiatic hordes which had forced their way between Byzantium and Germany. The most important of these invaders, the Hungarians, took no part in the civilization of this epoch, receiving the influence of Germany reluctantly, as did also the Bohemians, the Poles, and the Wends. The Byzantine traditions were thus limited in Europe to the provinces of ancient Greece, to some parts of Italy, and to the slowly developing Russian monarchy. The attempt to associate the civilization of Byzantium with that of the Occident,—made by the Emperor Otto I. through the marriage of his son and successor Otto II. with a Byzantine princess,—was without material and lasting results.

It appeared at first as if this superiority of Germany and the German emperors might be compatible with the hierarchical ideas which had been developed even before the age of Pope Gregory VII. No great weight is to be attached, it is true, to the phrases at that time often repeated, comparing the temporal power of the Emperor to the body, and the spiritual control of the Church to the soul, or the former to the moon and the latter to the sun; still, it was regarded as possible to create a kingdom of God upon this earth by the subordination of the rulers of Christendom to the Emperor, who, together with them, was to bow before the final judgment of the priestly hierarchy as pronounced by the Pope. This harmonious end might possibly have been attained had the Church been sufficiently wise to understand its limitations. The willingness of the laymen to humbly submit themselves to the ecclesiastical power was quite natural in view of the pious belief universal at this period, and of the monopoly which the priesthood then held of all learning and art, however superficial these may have been. Knighthood, especially, had received a character so peculiarly Christian that the rites of the Church not only shed a halo around the service of arms, but exacted the first duties of chivalry for religious ends. This was particularly the case during the Crusades, in which, however, the German princes at first took little part. When they were induced to join their forces to this great movement, the Church did not gain the advantages from Germany which it had expected, for the conflict between the imperial and the papal power had at that time already commenced. The Emperor Henry II. the Holy, a great patron of the Church and founder of the bishopric of Bamberg, had taken a decided stand against the interference of the Pope; and Henry III. the Salian, notwithstanding his religious asceticism, knew well how to distinguish between a humble piety and that servile subjugation to the Papacy which brought to his successor the catastrophe of Canossa.

Portentous as was the struggle between the Church and State in regard to the political development of the European powers, its influence was but little felt in science and art. Princes and princesses occasionally appeared as patrons of letters and art; but these branches did not, until the time of the later Hohenstaufens, meet

with that furtherance at the imperial court which had distinguished the capital of Charlemagne. Nor was the case otherwise with the see of Rome, the popes not taking an active interest in these matters until the period of the Renaissance. Scholasticism and the formative arts were indeed dependent upon the protection of the Church, but this was less that of the bishoprics and cathedral schools than that of the quiet chambers of the cloisters,—these establishments taking no part in the great political conflicts of the time.

The literary and artistic productions of the cloisters were of very unequal merit. The former were certainly much inferior to the latter: we can attach but little value to the monkish treatment of the seven “free arts,” the trivium, *i.e.*, grammar, dialectics, and rhetoric, and the quadrivium, *i.e.*, arithmetic, geometry, music, and astronomy. This shadow of the science of the last period of Roman decadence, this uncritical repetition of dead forms, was, it is true, of less value than the attempts to comprehend and to explain the Christian doctrines which served as the basis of the scholastic philosophy. But even the merits of this exegesis were almost entirely restricted to a logical argument and the consequent training of intellectual precision, while subjective freedom, in the emancipation from the belief in authority, and a true understanding of nature, was not attained in the slightest degree. The artistic results were of greater importance, notably in monumental architecture,—the branch chiefly cultivated throughout the Middle Ages.*

The chief artistic activity of the Carolingian epoch had been developed in the districts west of the Rhine, the greater part of Germany having the character of a colony which had yet to re-

* H. Otte, *Geschichte der romanischen Baukunst in Deutschland*. Leipzig, 1874.—The same, *Handbuch der kirchlichen Kunst, Archæologie des Mittelalters*, 5th edition. Leipzig, 1884.—L. Puttrich, *Denkmale der deutschen Baukunst des Mittelalters in Sachsen*, Leipzig, 1835–1852.—C. W. Hase and others, *Die mittelalterlichen Baudenkmäler Niedersachsens*. Hannover, 1856–1882.—H. von Dehn-Rotfelser and L. Hoffmann, *Mittelalterliche Baudenkmäler in Kurhessen*. Cassel, 1866.—F. Bock, *Rheinlands Baudenkmale des Mittelalters*. Köln and Neuss (without date).—E. Förster, *Denkmäler deutscher Baukunst*. Leipzig (without date).

ceive a higher civilization. It has been seen in the preceding chapter how few of the monuments of Carolingian art existed in this great tract,—the country to the east of the outposts of Fulda, Corvey, and St. Gall remaining entirely without traces of artistic activity. Less favored than France, this part of Germany lacked the suggestive example of antique remains, and works of art were only met with in those places which had been founded by foreigners, or had developed under the influence of foreign traditions. This was the case with Fulda and St. Gall, the settlements of British and Irish missionaries, and with Corvey, a branch of the French cloister of Corbie.

In the Romanic period this state of affairs was entirely changed. The brilliant rise of Germany under the Ottos was not without its monumental expression. The development was not felt in the same measure throughout the whole empire, a great part of the lowlands of the north and the whole of the south of Germany retaining, until late in the eleventh century, the primitive timbered constructions; but in Saxony, towards the close of the tenth century, there appeared a most successful architectural activity. This was especially the case on the slopes of the Hartz Mountains,—a district which had previously been without important buildings. This had been the home of the House of Saxony, the members of which were there educated, and there delighted to dwell; there the dowagers retired to spend their remaining days in a cloistered seclusion, and there almost all the Saxon monarchs found their last resting-place. The Hartz thus offered the greatest possible opportunities for the development of monumental architecture.

The style of the buildings of the Carolingians was based as much upon that of Byzantium and Ravenna as upon that of Rome. In the German architecture of the tenth century, however, the former influence wholly disappears, the churches, almost without exception, being of the basilical type. The Roman elements were not marred, as in the preceding epoch, by a barbarous misunderstanding and a lack of technical ability, but were improved, both in design and execution, by well devised and judicious innovations. In this case the alterations of plan and details did not result from obtuseness of appreciation and a want of practical experience, but rather

from a desire to find a means of artistic expression better adapted to the emancipated taste of the age than an unqualified imitation of the antique could be. And this change was not made in isolated instances alone, but radically and systematically. The works of the period consequently do not convey the impression of a laborious attempt to regenerate the classic style, but seem to be endowed with a new life. Instead of the senility and decrepitude of early Christian and even of Carolingian architecture,—instead of the stifened and mannered forms of Byzantine art,—we recognize in the Romanic structures the rapid and powerful advance of a youthful style. This fresh activity was, it is true, almost entirely limited to ecclesiastical constructions, but we must remember that in the unrivalled architecture of Greece, at least during the archaic period,

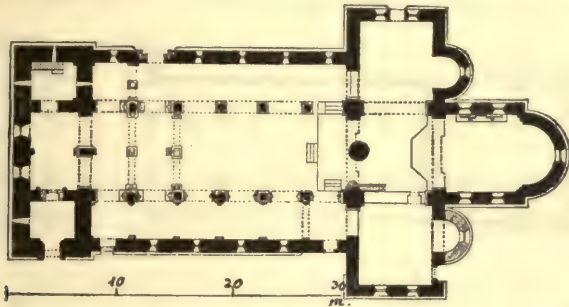


Fig. 135.—Plan of a Normal Romanic Basilica, that of Hecklingen.

the temples were by far more important than the civic or domestic buildings.

The independence of the architectural conceptions is evident in the transformation of plan, to which even the canonized basilical arrangement was submitted. The Germans had begun in the Carolingian period to construct, underneath the eastern chancel, a crypt, which was employed for the tombs of patrons, bishops, abbots, and even of royal founders, being provided with altars for the funeral masses. These subterranean churches, planned, of course, with reference to a vaulted construction, were not only extended beyond the choir to the space underneath the transept, but were increased in altitude, so that at least half of their height was above ground, thus requiring the pavement of the corresponding parts of the

church to be elevated, and made accessible by several steps. The result was a difference in level entirely foreign to the early Christian basilica, the presbytery being more effectively separated from the body of the church than it had formerly been by the balustrades and gratings.

In the basilica, as, for instance, in S. Clemente in Rome, the enclosure of the chancel had often been extended far into the main aisle, in order to gain the necessary space for the performance of the ceremonial. But during the Merovingian period, at least in France, this was effected in a more satisfactory manner by a combination of the cruciform with the basilical plan (compare page 209). This combination continued to be developed by a succession of highly important improvements. The first of these consisted in placing lateral apses upon the eastern wall, as subsidiary choirs

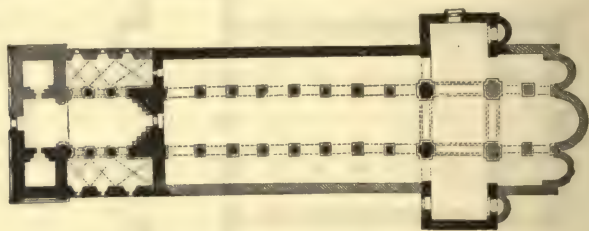


Fig. 136.—Plan of the Romanic Basilica of Paulinzelle.

in the continuation of the axes of the side aisles, so that these were terminated in the same manner as was the nave by the main apse (*Fig. 135*). This met the requirement of the multiplied ceremonial centres in a much more satisfactory way than did the introduction of altars before the columns of the central aisle, after the manner of the Carolingian plan of St. Gall. These lateral apses were readily enlarged to separate chapels by extending the side aisles, as well as the nave, beyond the transept,—this step resulting in a great improvement of the exterior by the increased number of the semicircular projections upon the eastern wall of the transept (*Fig. 136*).

The extension of the side aisles beyond the transept soon led to the continuation of the subsidiary choir entirely around the main apse, the columns of the nave forming the boundary of the

original chancel, while the outer wall of the surrounding passage was provided with smaller semicircular niches for altars (*Fig. 137*). This passage appears, at least in principle, in the Church of St. Wipertus at Quedlinburg, and in the plan of St. Gall. In the latter, however, it is still separated from the main apse by a wall instead of by columns. It is possible that the innovation was adopted in the Carolingian structure of St. Mary of the Capitol in Cologne, the fine presbytery of which (*Fig. 170*), repeating in the transepts the forms of the choir, may be based in arrangement upon the original plan of Plectrudis. There is consequently no sufficient reason to assume that Bishop Bernward of Hildesheim, who was present at the canonization of St. Godehard by the Coun-

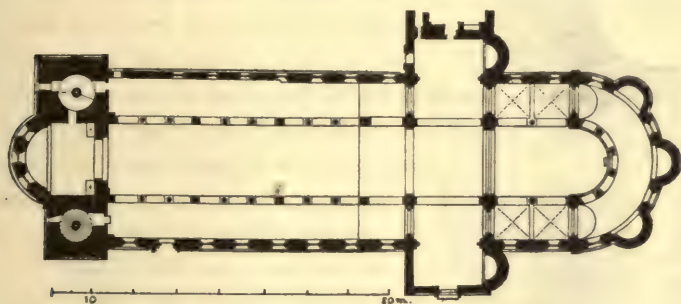


Fig. 137.—Plan of the Church of St. Godehard, Hildesheim.

cil of Rheims in A. D. 1131, introduced from France the improvement of plan evident in the Church of St. Godehard at Hildesheim, which was consecrated by him two years later,—nor is it proved that the bishop, during his journey, visited Burgundy or Auvergne, the districts in which this form first appears. At all events, the plan of the choir of St. Godehard remained an exception, while the symmetrical disposition of the apses in St. Mary of the Capitol was frequently imitated in the neighborhood of Cologne.

No less important were the alterations of the western front. In place of the paradisus portico, or narthex, of the basilica, which at this time had almost entirely disappeared, there was frequently introduced a repetition of the eastern main apse, with or without the intervention of a second transept. This innovation has already

been met with in the plan of St. Gall. The western part of the church often took the shape of a vestibule of the same width as the nave, but of greater height, with portals below, and opened above to the interior so as to form a gallery which in later times was employed as the organ loft. When this was not itself carried up as a belfry it was flanked by two towers, the plan and position of which varied greatly in different instances. At first they were generally round, like those indicated upon the plan of St. Gall. In that design they did not immediately adjoin the body of the

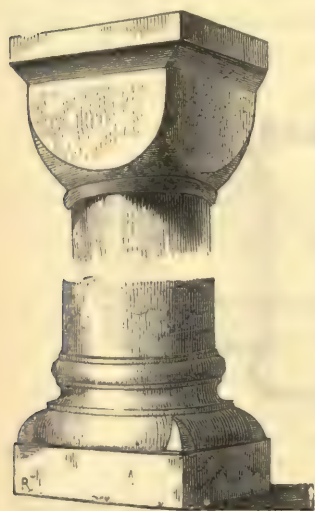


Fig. 138.—Typical Romanic Column.

church, but it is known from documentary evidence that such a connection existed in the cloister of Reichenau as early as A.D. 991. It was difficult to effect an organic conjunction between the round plan of such towers and the rectangular forms of the other parts of the building. In the cathedrals of Mayence and Treves (*Fig. 156*) the round towers are but slightly connected with the exterior walls of the western transept; while in the Church of St. Michael at Hildesheim (*Fig. 153*) the circular plan of the towers adjoining both sides of the two transepts is transformed in the lower part into a polygon. The Collegiate Church at Gernrode, on the contrary, has towers of this kind situated in the angles formed by the front walls of the aisles and the sides of a vestibule of the same width as the nave. The imperfections of such arrangements naturally caused the preference to be given to towers of square plan, which rendered it possible to effect an organic connection between them and the basilica, and led to the series of experiments culminating in the mighty structures rising above the intersection of the transept and the body of the church.

Among the architectural members of the interior changed during the eleventh century, the most noteworthy is the column (*Fig. 138*). The base retained the regular Attic mouldings, which have

continued almost unaltered in all ages, but the independence of the Romanic treatment is recognizable in the steeper outline, and especially in a peculiar addition which appears shortly before the beginning of the twelfth century, through which the square plinth and the lower tore of the base were brought into a more organic connection. In like manner as the inventor of the Roman Corinthian capital effected the transition between the circular termination of the calix with the square abacus by means of four spirally curled projections, the Romanic architect added four knobs, shaped like pods, or leaves, to the lower tore of the base, so that a connection was effected between the round plan and profile of this member and the rectangular corners of the plinth, which was advantageous both in æsthetic and practical respects. The shafts of



Fig. 139.—Capitals from Huyseburg.

the columns were somewhat shorter and more diminished than had been customary in the classic epoch. The entasis was entirely given up, and upper and lower apophyges were not attempted, their execution presenting too great difficulties for the stone-cutters of the Romanic epoch. Fluting was very rare, being replaced in those cases where an especial richness of effect was desired, as in the portals, crypts, etc., by a decoration of the shaft with linear, floral, or animal patterns.

The most remarkable innovation was the Romanic capital, which appears to have been first brought into general use in Saxony, at a time when in the Rhenish countries the traditional forms of the Corinthian capital were still retained. It is unquestionably true

that the formation of the Romanic cube capital answers the requirements of a projecting transition from the circular plan of the shaft to the square plan of the abacus, not only in a more pleasing manner than did the trapeze-shaped capital of the Byzantine style, but more naturally than did many of the later capitals of antiquity. The convex lower part corresponds to the curve of the Doric echinus, and gives a more vigorous and organic character to the mediating member than did the weak concave of the Corinthian calix. The remaining sides of the cube take the place of the abacus, which in the Doric capital was separated from the echinus, while the mouldings above, increasing the projection, emphasize the terminating plinth. On the whole, it may be said that in the Ro-



Fig. 140.—Capitals from Hamersleben and Alpirsbach.

manic column the Corinthian model was assimilated in character to the Doric, in the same way as in the Tuscan order the Doric style had approached the Ionic.

This normal form of the capital served as the basis for the most varied modifications. There were many stages in the development of the shape from a cube, as well as in the combination of several chapters to a single capital, which latter appears as the forerunner of the terminations above the bundles of shafts common in the Gothic style. The sculptured decorations of the four upright surfaces, or of the entire capital, resulted in a great variety of forms even in one and the same building. There was no attempt to observe the strict uniformity of type maintained in the antique styles, the decorations being entirely independent, and determined only by the in-

dividual imagination of the designer,—a continual change being, in fact, the most imperative principle. In a great number of cases more or less distinct reminiscences of the original Corinthian leaves and spirals are evident, though such close imitations as the capitals of St. Willibrord at Echternach, or such misshapen attempts as those of the chapel of St. Bartholomew at Paderborn, are rare. The varied treatment of the type is generally both original and in good taste (*Fig. 139*). Instead of the floral forms there often appear imitations of the ancient Northern interwoven patterns, at times in simple linear braiding, but more frequently with the introduction of the figures of human beings and monstrous animals (*Fig. 140*). Both of these latter varieties have occasionally a fantastic and con-



Fig. 141.—Capitals from the Abbey Church of Brauweiler.

fused character, the fantastic subjects being not only beyond all explanation, but represented in a manner entirely contrary to the fundamental principles of the architectural member to which they are applied (*Fig. 141*). In some instances, especially in profane buildings, these decorations attain to a richness and grace of effect which would be inexplicable without the influence of Oriental designs. The best works are met with in those districts where the elements of both the classical and the Northern systems of ornamentation were combined and blended, this being indeed the fundamental character of the Romanic style in its perfection. The normal type of the capital is altered in the most various ways to suit the requirements of its decoration. The transition between the shaft and the cube is sometimes not convex but concave, this

latter form being better adapted to the application of foliage similar to that of the Corinthian order. In rare cases the same member is employed for the base as well as for the capital, the cube being reversed for the support, as in the Nonnberg, near Salzburg, and the crypt of the Cathedral at Brandenburg, or a member similar in



Fig. 142.—System of the Cloister Church of Paulinzelle.



Fig. 143.—System of the Collegiate Church of Gernrode.

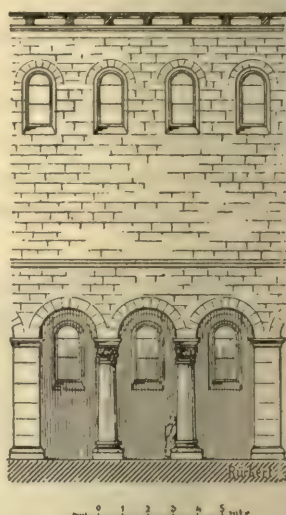


Fig. 144.—System of the Collegiate Church of St. Michael, Hildesheim.

character to a base, serving for the capital, as in Poetnitz, near Dessau. Although the poverty of ideas is unpleasantly felt, a certain constructive logic cannot be denied to this duplication.

In the crypts columns are almost exclusively employed for the supports; in the superstructure, on the other hand, piers were fre-

quently introduced (*Fig. 142*). Even in the earliest Saxon works the supports which divide the nave from the side isles frequently exhibit an effective alternation of square piers with round shafts. And in the construction of the early Christian basilica many attempts had been made to relieve the columns from a portion of

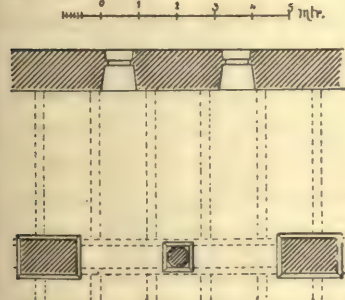
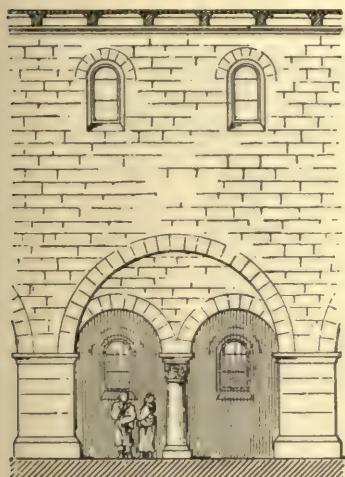


Fig. 145.—System of the Church of Druebeck.

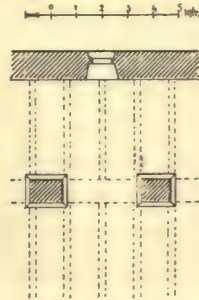
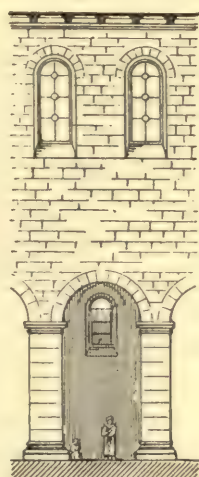


Fig. 146.—System of the Church of Our Lady at Halberstadt.

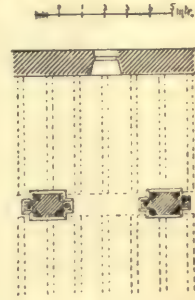
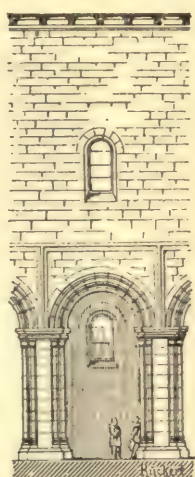


Fig. 147.—System of the Church of Thalbuergel.

the weight imposed upon them by means of isolated piers, discharging arches, etc. These precautions became the more necessary in the architecture of the Romanic period, as the thickness, and consequently the weight, of the clerestory walls had been increased in a greater proportion than had the strength of the shafts. Instead

of allowing this makeshift to be felt as a concession to the constructive requirements, it was elevated to a rhythmical system, most satisfactory from an artistic point of view. Whether one (*Fig. 143*) or two columns (*Fig. 144*) were placed between the piers, a regular alternation of stronger and weaker members, symmetrically disposed upon either side of the nave, conveyed the effect of the trochaic or dactylic rhythm of a verse. This impression was heightened when the grouping was repeated by the gallery openings (*Fig. 143*), or, as was more frequently the case, by arches in relief, which were extended above the columns from pier to pier, so that three (*Fig. 145*) or more supports were brought into intimate connection.

The value of the pier in the construction of the clerestory wall having thus become apparent, it naturally resulted that the round supports were more and more replaced by those of square plan. The bare and inartistic character of the pier (*Fig. 146*), when contrasted with the more graceful and ornamental column, was overcome in a manner similar to that by which the Romans masked their arcades, with engaged columns and entablatures in relief. Something was gained by the chamfering, especially when it was combined with flutings and elaborate chamfer-stops. This was followed by the addition of small engaged columns, three-quarters round, to the corners thus cut away,—the first step towards the resolution of the pier into a bundle of shafts. At first little more was attempted than a merely decorative combination of columns with the pier, although engaged shafts were occasionally added to the narrow sides of the support, and continued as mouldings around the soffit of the arch (*Fig. 147*). The most important introduction of such engaged columns,—on the sides of the piers towards the nave and the aisle,—was not made until the horizontal ceiling of wood had been exchanged for a vault of masonry, concerning which we shall speak hereafter.

The ranges of columns, with or without alternating piers, were always connected by arches, at first in perfectly plain arcades, like those of the early Christian basilicas. As before mentioned, it was only in rare cases (*Fig. 143*) that an attempt was made to relieve the weaker columns by discharging arches which extended from pier to pier, surmounting two smaller arcades. The inner sides of the

clerestory walls were frequently provided with mouldings of slight projection, which arose vertically from the middle of each support to a horizontal cornice (*Figs. 142 and 147*). When piers were employed the sharp angles of the arches were chamfered or beaded, like the corners of the supports beneath them.

The walls of the first Romanic churches, like those of the early



Fig. 148.—Interior of the Collegiate Church of Gernrode.

Christian basilicas, were generally perfectly plain, the only memberment being the clerestory windows. It was only in rare cases that the galleries, like the upper stories of the Byzantine basilicas, were introduced above the side aisles, and these were always low, and immediately beneath the lean-to roofs (*Figs. 143 and 148*). The windows were small, and remained of the same shape and proportions as those of the early Christian basilica, being generally arranged in

the axes of the arcades. The shape of their jambs, soffits, and sills was, however, altered in a most advantageous manner. The rectangular section of the window openings of the classic styles was found to be attended with practical difficulties so great in the rainy countries of the North, that the outer sill was cut away in a steep angle, to assure the water running off, and the adoption of this chamfering upon all sides, both within and without, soon followed, as it became evident that an equal amount of light was thus to be obtained notwithstanding the greater thickness of the walls and the reduction of the glazed aperture (*Fig. 149*). Both the transept and the extension of the choir beyond it were provided with windows like those of the nave. Smaller round arched windows appeared

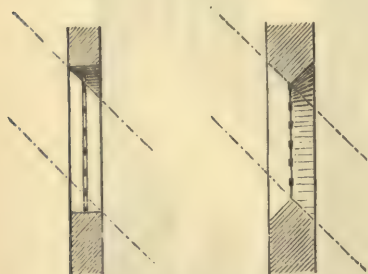


Fig. 149.—Section of Early Christian and Romanic Windows.

upon the walls of the side aisles and of the apses, the latter of which had previously been without any openings for the admission of light. The ceiling was horizontal, like that of the basilicas, but open timbered roofs were usually avoided, the tie-beams being panelled and decorated with simple colors. During the earliest period vaults appeared only in the crypts and apses,—in the former

most commonly as cross-vaults, in the latter always as conches,—their rude and massive masonry restricting all spans to the smallest possible dimensions.

The exterior of the first churches of the Romanic period is distinguished from that of the basilical models by three characteristic traits: the cornice-arches, the portals, and the towers. The first of these entirely replaced, at least in Germany, the barbarous zigzag terminations of walls formed by inclined bricks. It was founded upon the so-called corbel-table, which had developed from the antique modillion cornice. In like manner as the horizontal entablature, which originally connected the columns, had been replaced by arcades, the consoles were here made to support a system of small arches,—the adoption of semicircular archivolts in the place

of horizontal beams, which had been carried out in the interior being thus expressed in the decorations of the outer cornices. This exterior repetition of the inner system of arcades became more pronounced when, in later times, the most prominent parts were provided with a gallery of diminutive columns instead of the cornice-arches; but even in the simpler forms the diminished and repeated arcades, though not projected upon consoles, are readily recognizable and of excellent effect. This was especially the case when this horizontal termination was combined with the vertical projections which were employed to strengthen the angles of the building, as well as to indicate upon the walls of the exterior the position of the columns, or piers, within. These pilaster-strips had appeared in a single instance in Ravenna (*Fig. 19*), but the connection of the uprights adopted in S. Apollinare in Classe was decidedly inferior to the graceful play of the Romanic arches, which combined a pleasing cornice with the vertical memberment. The mouldings surmounting the corbel-table, sometimes only a plinth, though generally a rounded scotia and tore, had but slight projection, and were at first but little decorated.

In the earliest period of the Romanic style the inclined sides of the windows were perfectly plain. It was only upon the apses that the apertures were surrounded by pilasters or engaged columns, surmounted by arches in relief, these being repeated upon the outer walls of the crypt, in order to designate the important site of the altar niche upon the exterior by a more elaborate decoration. It was in this connection that the dwarf galleries first appeared in place of the arched cornice. Particular attention was devoted to the development of the portals, the correct principle,—that the entrance as well as the apse should give artistic expression to the character of the interior,—governing their arrangement, they holding, as it were, the same relation to the entire structure as does an overture to the musical creation which it precedes. Although the portal corresponded in size to the dimensions of the entire monument, it was so designed that the swinging doors were not so large as to interfere with their practical usefulness, thus avoiding the disadvantages which had made themselves felt in the doors of the temples of the ancients. This was effected by the

adoption of an inclined section for the jambs and soffits, as in the windows, the necessary dimensions and the requisite surfaces for decorative treatment being provided by making the entire splay upon the outside, and in some instances even extending the portal beyond the front surface of the wall. The portals thus became three or four times as large as the real door, which remained, even in the largest churches, of so moderate dimensions that it could be easily opened and shut (*Figs. 150 and 151*). The interior construction of the building was set forth in the artistic treatment of the sides of the portal and of the semicircular tympanon when this was introduced: the former giving, as it were, a perspective

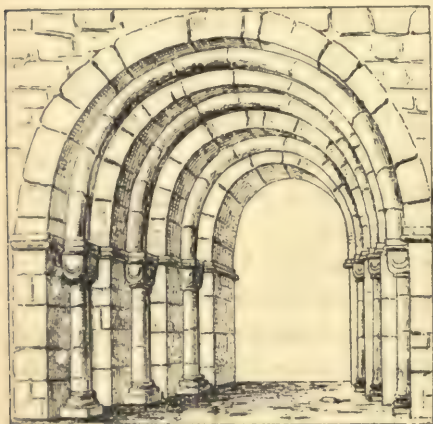


Fig. 150.—Portal of Altenzelle.

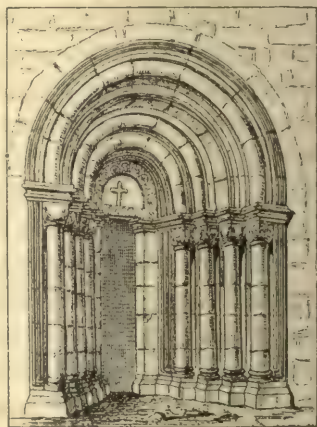


Fig. 151.—Portal of Thalbuergel.

view of the piers and columns of the nave, and the latter indicating the divine character of the building by a sculptured or painted representation of the altar niche with its sacred figures. The portals of the Gothic period occasionally surpassed those of the Romanic style in elaboration and imposing dimensions, but never in organic composition or thoughtfulness of design.

The portals were generally more richly decorated than any other parts of the building. Not only the capitals but even the shafts of the columns were covered with carved decorations, which, by the floral character and the spiral arrangement of their patterns, resemble the festive ornaments of entwined wreaths and garlands. The

arches of round and angular section were also ornamented, but more commonly with geometrical designs. It was here that the patterns peculiar to the Romanic style first appeared, namely, the billet-mouldings, checkers, chevrons, scales, diamonds, etc. (*Fig. 152*). Carvings of figures were at first restricted to the tympanon, but were extended in later times to the members of the splay, and even to the adjoining wall surfaces. Among the Romanic edifices with horizontal ceilings, the most elaborate sculptures are those of the Church of St. James in Ratisbon, which is, however, of comparatively late date.

The towers of the Romanic style may be divided into two classes. As has been explained in the consideration of the early arrangement of plan, those flanking the ends of the transepts were

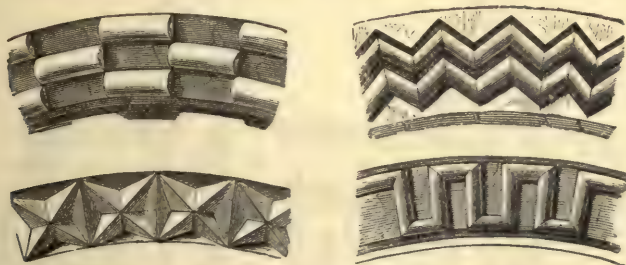


Fig. 152.—Romanic Decorations.

at first of round or polygonal section (*Fig. 153*). After the adoption of the square plan the larger structures were usually provided with four towers, placed in the angles formed by the transepts or by the vestibule with the body of the church. In the treatment of their wall surfaces with pilaster-strips and corbel-tables they resembled the side aisles and clerestory, thus forming a connection between the memberment of the sides of the building and that of the front of the choir. The stories of the towers were decreased in height as they ascended, the louver windows being formed by two or three arched apertures, separated by small columns. This gave the agreeable effect of a more elaborate and light construction of the upper parts, the progressive diminution of the stories making the pile appear higher than it in reality was. The pyramidal roofs of the towers were generally of a steeper angle than those of the other

parts of the building, although the inclination of the gables had been increased throughout by the exigencies of the northern climate. The towers of the second class were erected above the intersection of the main aisle and the transept. The square plan naturally led here to the adoption of a rectangular or polygonal superstructure, which by its extent if not by its height became even more prominent than the flanking towers. In the larger churches, with two transepts, the square towers were repeated above both intersections, increasing the effect of duplication which had been first determined by the introduction of an apse upon the western side.



Fig. 153.—Church of St. Michael at Hildesheim.

The early Romanic architecture of Germany did not develop in regular sequence or simultaneously in all the provinces according to the principles here set forth. The period of advance was very different in different parts of the country, while the mode of development varied according to local circumstances, and especially to the influence of the classic traditions. Here the progress was rapid, there slow; in some districts it was organic and thorough, while in others it was retarded by conservative and eclectic tendencies. The pre-eminence of Saxony has already been referred to. Nevertheless, the constructions of the first Saxon king, Henry the Fowler, who died in 936, were of very slight artistic importance, and chiefly restricted to the hasty building of rough walls, like those

of Quedlinburg, Merseburg, Meissen, Goslar, Brunswick, Nordhausen, etc. His palaces were for the greater part of wood; that of Merseburg, it is true, is especially mentioned as a two-storied structure of stone, but it probably consisted only of an extremely coarse masonry of unhewn stones. This supposition is not contradicted by the mention of mural paintings executed in 933 in the "upper hall." The nature of the original construction of Dankwarderode or Brunswic, founded by Dankward and Bruno, the uncles of Henry, is not at all evident from the later remains recently discovered upon their site. The cloisters and churches of the period were likewise rude and mean; the most important among them seems to have been the establishment of St. Servatius at Quedlinburg, the seat of the dowager queen Mathilde. The few remains which date to this epoch, such as the crypt of the former church of St. Wipertus, display extreme roughness and want of practice in the imitation of the classical forms, as well as in the arrangement of plan and the execution of the construction. The columns have partly calix, partly trapeze-shaped capitals, while the central pier has retained some semblance of Ionic forms. These members, as well as the barbarous horizontal cornices which support the barrel vaults above them, show no trace of the beginnings of a new architectural style, but rather the last stage of debasement of antique details. The same is the case with the architectural members which have been preserved in the western crypt of the Palace Church at Quedlinburg.

The earliest memorial of the development of the Romanic style in Saxony is without doubt the Collegiate Church of Gernrode; but it is not possible to say what parts of this edifice belong to the original construction of the Margrave Gero, dating to the year 958. We hold, in opposition to the opinion of Quast and Schnaase, that the most important part, the central aisle (*Fig. 148*) and the galleries, cannot be ascribed to that period, to which only the eastern apse and the round towers are referable with certainty. The northern tower has a system of pilasters connected by gables, after the manner of the Carolingian portal of Lorsch (*Fig. 120*). The southern tower has arched forms, though not the arched corbel-table, which does not appear in this building. In greater part the Church

of Gernrode belongs to a group of Saxon edifices of a similar style, dating to the eleventh and twelfth centuries; among these the churches of Westergroeningen, Göslar, Frose, Merseburg, Huyseburg, Ilsenburg, Heiningen, and Amelunxborn display a regular alternation of piers and columns in the nave. The distinctive Romanic features do not seem to have been determined before the age of the last Ottos, towards the close of the tenth century.

The group of Romanic buildings in the vicinity of Hildesheim date to the beginning of the eleventh century. In like manner as the civilization of Saxony was fostered by the royal family, that of the district of Hildesheim was dependent upon the bishops. Bernward, A. D. 993 to 1022, and his successor Godehard, A. D. 1022 to 1039, elevated their diocese to a pre-eminence similar to that of Fulda in the ninth and tenth centuries. The first of an important series of architectural monuments was the cloister complex of St. Michael, which was built between 1001 and 1033. The structure, as it remains at present, is certainly founded upon the original basilical plan, and at least the main walls antedate the fire of A. D. 1162. We see here a duplication of choirs similar to that of the plan of St. Gall. The treatment of the exterior is primitive and bald; two rectangular towers rise above the intersection of the transepts and the nave, and at the ends of the transepts there are four taller towers, of polygonal plan below and round above, with undeveloped and insufficient louver windows (*Fig. 153*). The arcades of the interior, supporting the clerestory wall, display an alternation of columns and piers, so disposed that two round shafts stand between the square piers (*Fig. 144*). The Church of St. Godehard at Hildesheim, consecrated in the year 1033, has the same system of two columns to each pier, with a more elaborate development of the choir (*Fig. 137*). The same is the case with the Cathedral of Hildesheim, founded in 1061, where, however, this feature is less readily recognizable because of a later reconstruction; as also with the churches of Bursfelde, Wunsdorf, Gandersheim, and Klus, referable to the beginning of the twelfth century, and influenced by the example of Hildesheim. It may consequently be assumed that this dactylic rhythm of the arcade supports was peculiar to

the diocese of Hildesheim, in the same way as the trochaic alternation of columns and piers was to the Hartz.

Otherwise, throughout Saxony, the constructions were generally of piers alone. The churches of Walbeck, Marienthal, Vessera, and the Cathedral of Bremen (*Fig. 154*), all dating to the eleventh century, as well as the Convent Church of Ammensleben and the Church of Our Lady at Halberstadt, built at the beginning of the twelfth century, have clerestory walls supported upon simple arcades of piers, the bases of which are sometimes Attic, while the impost cornices are of exceedingly primitive forms. The somewhat more elaborate capitals of the piers at Koenigslutter are exceptional. This extreme rudeness and bareness of design was entirely over-

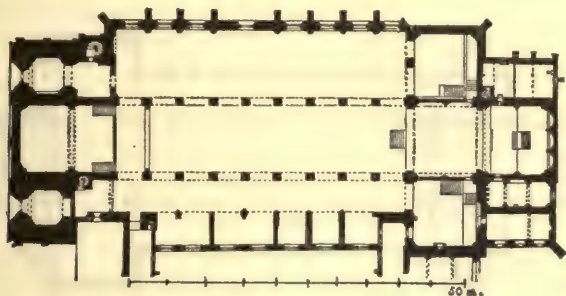


Fig. 154.—Plan of the Cathedral of Bremen.

come in the twelfth century. In the Church of Our Lady in Magdeburg, which was even previous to this age, the piers were chamfered, and the same peculiarity, in some instances with the introduction of small engaged columns at the corners, appears in the churches of Fredelsloh near Eimbeck, Petersberg near Erfurt, Marienberg near Helmstaedt, and Wechselburg and Thalbuergel near Jena. The last of these (*Fig. 147*) was by far the most highly developed and successful. In addition to the four columns engaged to the corners and not projecting beyond the line of the common impost, two further shafts were adjoined to the narrow sides of each pier, these being continued around the soffit of the arch as large mouldings, in the same way as were the shafts of the corners. This system satisfied alike the æsthetic and the practical require-

ments, and prepared the way for the introduction of a vaulted ceiling above the nave.

The Romanic basilicas with arcades supported upon columns alone were rare in Saxony, and of course restricted to the churches with horizontal ceilings. Three of these are known—the Collegiate Church upon the Moritzberg near Hildesheim, the Convent Church of Paulinzelle (*Fig. 142*), and that of Hamersleben; founded respectively in 1060, 1105, and 1108. The two latter buildings are very similar; their pleasing proportions and beautiful decorative details seem to point to foreign influence, particularly to that of Franconia.

The high degree of independence recognizable in Saxony was not to be expected in the Rhenish countries. The influence of the traditions and examples of classic and Carolingian architecture

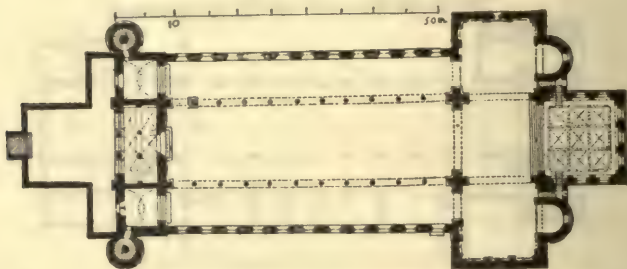


Fig. 155.—Plan of the Convent Church of Limburg on the Hardt.

continued to be felt, although the barbarous taste of the times had led to so great a decadence of monumental building that timber was employed even for the most important edifices, as, for instance, the Church of St. Stephen at Mayence, built about the year 990. The enormous Convent Church of Limburg on the Hardt (*Fig. 155*), erected by the emperor, Conrad II., between 1024 and 1039, and the Church of St. George, now that of St. James, at Cologne, consecrated in 1067, both exhibit Romanic details. Nevertheless, in the reconstruction of St. Justinus in Hoechst on the Main, A. D. 1090, rough Corinthian capitals were introduced, which probably were vestiges of the older edifice. It is also not certain whether the rude imitations of ancient forms which appear in the pilaster capitals of the upper story of the west towers of St. Castor in Bonn are referable

to the Carolingian epoch or to the eleventh century. The former origin may with much probability be assumed for the Corinthian columns of the Church of St. Willibrord at Echternach, which was consecrated for the second time in 1031. This building is the only early Rhenish example of that alternation of columns and piers which was so common in Saxony; it is, moreover, provided with discharging arches above every two arcades, similar to those of Huyseburg and Druebeck.

The Roman influences are also recognizable in those constructions in which the arcades are supported upon piers,—to which category belong all the other Rhenish church buildings referable to this early epoch. As might be expected, the classic forms are to be traced only in the more important edifices, the greater number of the horizontally ceiled Rhenish basilicas being extremely rude, and entirely devoid of ornamentation. Among these may be mentioned the churches of Lorsch, Kaiserswerth, Hirzenach, Johannisberg, Rommersdorf, Altenahr, Altenkirchen, Loevenich, of St. Matthew near Treves, and of St. Ursula and St. Cecilia in Cologne, all of which were built before 1130. Decidedly the most important Rhenish works of this earliest period were the cathedrals of Mayence and Treves, some parts of which, remaining to the present day, may without doubt be referred to the age of the horizontally ceiled Romanic basilicas. The two cylindrical towers of the eastern façade of the Cathedral of Mayence, which were built between 1000 and 1036, display in their five lower stories pilasters imitating classic forms, and corresponding cornices without corbel-tables, while the southern portal has rude Corinthian columns. The decorated parts of the apse are somewhat later, as are also the upper parts of the towers, that above the intersection of the nave having been entirely built during the Gothic period. The western façade of the Cathedral of Treves (*Fig. 156*), the reconstruction of which was completed in 1047, has classic pilasters with distinct reminiscences of the details of the Porta Nigra. Although these two cathedrals, even at that period, far surpassed the Saxon churches in extent and magnificence, the countries bordering the Rhine were nevertheless inferior to Saxony in the artistic importance and independence of their architectural works. The pre-eminence of the

Rhenish provinces dates from the first introduction of the vaulted ceilings, which will be considered hereafter.

Westphalia has preserved some memorials of this period which display great originality and ingenuity of design, notwithstanding their extremely plain and prosaic character. The arcades of these basilicas were supported only upon piers, the columns of the Church

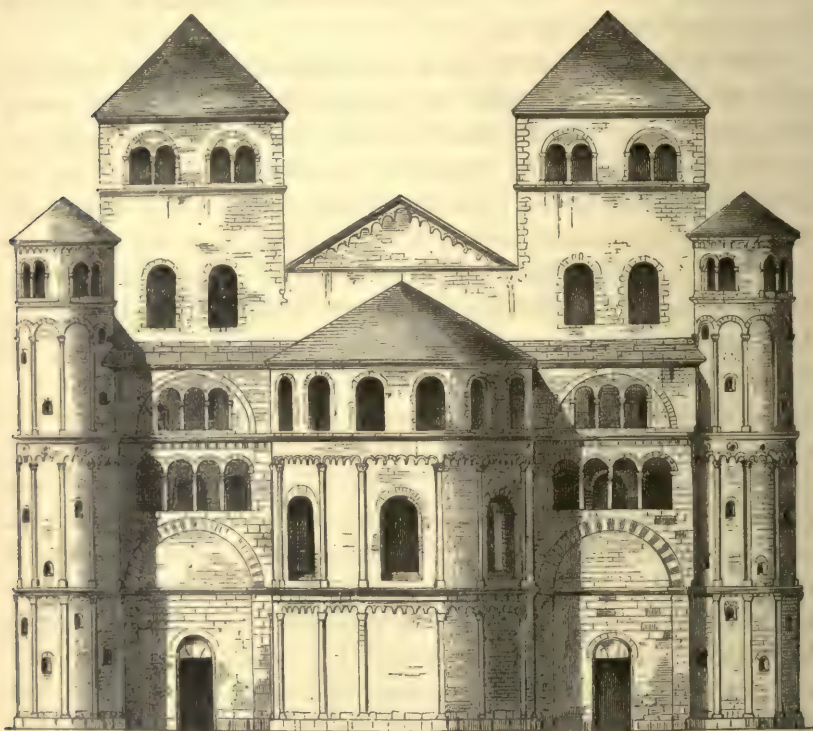


Fig. 156.—Western Façade of the Cathedral of Treves, as it appeared in the Eleventh Century.

of Neuenheerse being quite exceptional. The cathedrals of Paderborn and Minden, dating to the eleventh century, have perfectly plain piers, and the churches of Freckenhorst and Cappenberg, built during the twelfth century, are equally bald and inartistic. The characteristic ornaments of the Romanic style, such as the corbel-tables and the decorated portals, are but seldom employed upon the exterior, while the place of the picturesque groups of

towers is taken by one gigantic pile in the middle of the façade, which, occupying the entire width of the nave, appears even more bare and inartistic because of the entire lack of memberment by pilaster-strips and string-courses. This defect, which was in accordance with the blunt and unimaginative nature of the population, is particularly felt in the larger buildings, such as the Cathedral of Paderborn (*Fig. 157*) and the Church of St. Patroclus at Soest. The ecclesiastical edifices of Westphalia, like those of the Rhenish countries, did not attain to a higher importance until the general introduction of vaulted ceilings, which were early adopted in both these provinces.

The other parts of Germany, during this epoch, remained far behind Saxony and the Rhenish countries in artistic respects. Hesse was chiefly influenced by Saxony, as is proved by the enormous columned Basilica of Hersfeld, begun in 1038 (*Fig. 158*), and by the basilicas of Breitenau near Cassel, and of Ilbenstadt, in both of which the clerestory walls are supported upon piers. In Franconia, on the other hand, the ecclesiastical buildings, in so far as they are to be judged from their present condition, display Rhenish influences. This was the case in Bamberg with the Church of St. James, completed in 1073; with the Cathedral, originally built, between 1081 and 1111, as a horizontally ceiled basilica, with columns engaged to the corners of the piers; and with the Basilica of St. Michael; also in Wurzburg with the Cathedral, which was built at two different periods, between 1042 and 1050, and between 1133 and 1189. Engaged columns were attached to the narrow sides of the piers of this last building, which retained its ceiling of wood until a comparatively late date.

The circumstances of Southern Germany rendered it impossible

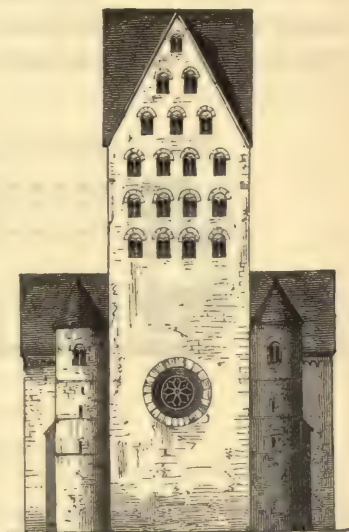


Fig. 157.—Western Front of the Cathedral of Paderborn.

for the architecture of this country to keep step with that of Saxony. The advantages derived from the ancient Roman civilization by the provinces bordering the Danube had been entirely lost through the migrations of Germanic races during the fourth century, and the inroads of the Hungarians in the tenth. In the second half of the eleventh century the churches of the diocese of Passau, under Bishop Altmann, were entirely of wood, and with the exception of Ratisbon and the shores of the Lake of Constance, which were influenced by St. Gall, there were few important works of the early Romanic period in this part of Germany. The most noteworthy among these are in Ratisbon itself. The Upper Minster and the Church of St. Emmeramnus, both of which were originally exten-

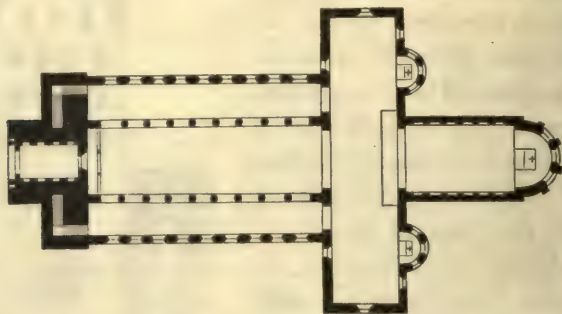


Fig. 158.—Plan of the Convent Church of Hersfeld.

sive but perfectly plain basilicas, with piers in the interior, were built during the first half of the eleventh century. The period of the erection of the Church of St. Stephen, the so-called Old Cathedral, is so questionable, and its style so exceptional, that it is not to be classed with any of these edifices; and the Baptistry of the Cathedral cloister, a small concentric structure with apses upon three sides, can hardly be assumed to belong to the earliest period of the Romanic style. The same is the case with the Church of St. James, begun by Scottish missionaries as late as 1150; it must nevertheless be included in this list as one of the best preserved columned Romanic basilicas with a timbered ceiling. The most noteworthy part of the building is the portal of the southern side, profusely decorated with sculptures, and the entrance of the north-

ern cloister, ornamented with Germanic and Celtic chevrons. The artistic activity of the south-eastern districts of Germany was in the main dependent upon that of Ratisbon. In Freising, only the crypt of the Cathedral, remarkable for its fantastically decorated piers, dates to this period. Ecclesiastical edifices with columns were rare between the Lech and Salzach rivers; only the Parish Church of Reichenhall has columns alternating with the piers, while a duplication of the round shafts between the square supports is exhibited by the Romanic basilica of St. Peter in Salzburg, which, although dating to the twelfth century, was originally constructed with a horizontal ceiling of wood. In this town is the cloister of the convent Nonnberg, referable to the eleventh century, and certainly the oldest known structure of the kind in Germany. A dactylic alter-

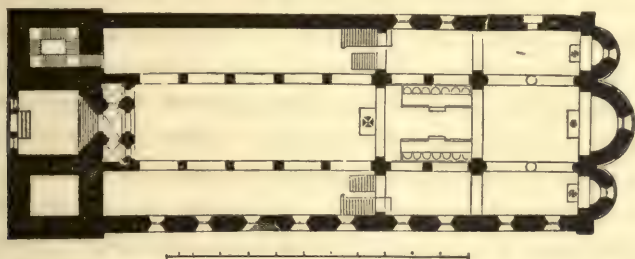


Fig. 159.—Plan of the Cathedral of Gurk.

nation of columns and piers, like that in the Church of St. Peter in Salzburg, appears, farther to the east, in the Convent Church of Sekkau in Upper Styria. The Basilica of Gurk (*Fig. 159*), and that of St. Paul in the Valley of the Lavant, both originally provided with timbered ceilings, have piers in the interior. The last three churches are not older than the twelfth century. The only memorial of the earliest Romanic period in Bohemia is the Church of St. George in Prague, built in the eleventh century, and remarkable for its heavy and awkward forms.

The Romanic reconstruction of the Cathedral of Augsburg, which occupied the site of a basilica antedating the Carolingian epoch, was carried out between 991 and 1077, and exhibits a horizontal ceiling and piers. The influence of this city in the south-western provinces of Germany was less important than that of St.

Gall. In Southern Suabia, and especially in the neighborhood of the Lake of Constance, there are many remains of structures referable to this period, in which the Carolingian and classic artistic traditions were still retained. The capitals of the Church of Oberzell, upon the island of Reichenau, which may have been built as early as the tenth century, show both the traditional and the Romanic forms; the same is the case with the bulging shafts and the octagonal capitals of the Cathedral of Constance, begun about the middle of the eleventh century. On the other hand, the contemporaneous Minster of All Saints at Schaffhausen, and also the Church of St. Aurelius at Hirschau, display a decided preponderance of the Romanic details. Of the basilicas with clerestory walls supported upon piers, one at least, that of Mittelzell, built in 1048, resembles the Carolingian plan of St. Gall in a duplication of the transepts and apses. The churches of Wurtemberg and Baden belonging to this category show a peculiar preference for a straight termination of the choir, which form appears in Hirschau, Kleinkomburg, Denkendorf, and Maulbronn. In the Church of Steinbach the altar niche is semicircular upon the inside, but is enclosed upon the exterior by rectangular walls. In Suabia the decorative members are frequently ornamented with figures sculptured in relief, as at Brenz, Faurndau, Denkendorf, and Ellwangen, while the preference for timbered architecture and nogging, which is still characteristic of this region, is evident even in the churches.

The great variety and the whimsical character of the architectural forms employed by the Alemannic races is even more evident in Alsace than in Baden and Wurtemberg. Influenced from all sides by the most divergent traditions, this country did not develop any pronounced architectural type, its monuments exhibiting a series of experiments with different motives. The Church of St. George at Hagenau is a columned basilica; that of Surbourg displays an alternation of columns and piers; while that of Alspach has piers, to the corners of which columns are engaged. The façade of the Church of Rosheim, which does not, it is true, belong entirely to the construction of 1049, exhibits direct classical reminiscences in the formation of the gable and acroteria. The influences of the Rhenish countries predominate in Lorraine as well as in

Alsace. Few memorials of the Romanic style have been preserved in the former country. The duplication of the transept and choir in the Cathedral of Verdun may perhaps be referable to this period, as may also the churches of Blenod and Champ-le-Duc, with alternating piers and columns divided into groups by discharging arches, as in the Church of St. Willibrord at Echternach. The Low Countries at this time belonged to Germany, and are to be considered with it; but in Holland all buildings were of wood, and Belgium was of subordinate importance. Basilicas with columns alone are not met with at all, while constructions with alternating piers and columns, like the Church of Tournay and that of St. Vincent in Soignies, with its double-storied side aisles, are rare. Those basilicas in which the clerestory wall was supported only upon piers were perfectly plain and without artistic interest.

The arrangement of the horizontally ceiled Romanic basilicas which has been described was almost exclusively employed throughout the eleventh century, and continued for many decades thereafter. At the beginning of the twelfth century an innovation was made which entirely altered the character of the interior, giving it a far greater independence and stylistic perfection. This was the adoption of vaulting in the place of the former ceilings of wood.

The theory and practice of vaulting had been continued throughout Germany without interruption since the period of the Roman occupation. There were many classic remains still standing in the country, notably in the Rhenish provinces, which assisted the technical traditions, the ruins giving an insight into the methods of construction from all sides. In the Minster of Aix-la-Chapelle the three most important systems of vaulting employed by the Romans—cupola, barrel- and cross-vaults—were reproduced with remarkable ability, and the apses and crypts (*Fig. 160*) of the basilicas did not allow the practice to become forgotten. There was lacking, nevertheless, that degree of boldness and experience requisite for the adoption, in the principal parts of the ecclesiastical buildings, of such extended vaulted constructions as had been commonly employed during the imperial epoch of Rome for thermæ and even for forensic basilicas.

The beginnings of the Romanic style have been traced in Saxony, but the higher development of its forms, in connection with vaulted constructions, is almost entirely due to the Rhenish countries. The new system seems to have first appeared in the important Church of St. Mary of the Capitol in Cologne, the vaulted passages around the three apses of which were probably built at the time of the reconstruction of this edifice towards the middle of the eleventh century. As the passages in question were themselves nothing else than continuations of the side aisles of the body of the church, it was natural that the vaulting should soon be transferred to these more extensive and important parts of the edifice. In other churches of Cologne of a similar arrangement, such as the



Fig. 160.—Crypt of St. Gereon in Cologne.

Church of the Apostles and that of Great St. Martin, the vaulting of the side aisles appears to have even preceded that of the termination of the choir, the ceiling of masonry having without doubt been adopted from a desire to protect the lower parts against danger from the frequent conflagrations of neighboring dwellings, as well as to provide a firmer abutment for the higher clerestory walls. In the Church of St. Ursula at Cologne there was added to this consideration the necessity of providing a solid foundation for the pavement of the upper story of the side aisles.

The Church of St. Mary of the Capitol had been provided at the time in question with the grand cupola above the intersection of the transept and nave,—in pursuance of the constructive princi-

ple adopted in the three great conches, or in imitation of the Minster of Aix-la-Chapelle or the Church of St. Sophia at Constantinople, the design of which may have become known in Germany at this period. It is also possible that this arrangement had been adopted in the earlier church upon this site. Otherwise the vaultings of the eleventh century did not exceed very moderate dimensions. The clumsy execution did not permit a reduction of the thickness of the masonry, and this extreme massiveness rendered the construction doubly difficult by requiring abutments so heavy that they seemed to preclude all more extensive undertakings of the kind. The last step, however, was finally made, and the nave was covered with a vault of stone. This was at first due less to the desire for a harmonious structural development, much as this may have been appreciated, than to the necessity of preserving the churches from frequent destructions by fire, to which they were exposed by their position in the midst of the wooden houses of the towns.

The most simple form of the stone ceiling, the barrel-vault, was not at first employed in Germany. The development of the cross-vaults in the side aisles, determined by the arcades of the clerestory wall, led the way to a similar division of the vaulting of the nave. The distance from pier to pier was approximately equal to the width of the side aisles, thus providing the desirable arrangement of square compartments. Moreover, the cross-vaults of the side aisles did not require a great elevation of the lean-to roofs, as the transverse arches were placed directly upon the impost of the piers, whereas a barrel-vault could not, without a complicated system of lunettes, spring from any point below the soffit of the main arches, and would thus have increased the height of the bare wall between the arcades and the clerestory windows. While the cross-vaults of the side aisles had been regulated according to the piers, so that a compartment corresponded to each arch, the double width of the nave, on the other hand, was divided into square fields by the employment of the second, fourth, and sixth pier, and so on, for the support of the vault, those of odd number not being directly brought into requisition for this purpose. The piers upon which the vaulting rested were strengthened by the addition of pilasters, or engaged columns, upon the inner side, from the capitals of which

sprang not only the transverse ribs above the nave, but also the longitudinal arches in relief upon the clerestory wall. The cross-vault was built upon the square frame thus provided.

This system of vaulting was of decisive importance for all succeeding ages, in æsthetic as well as in constructive respects. The rhythmical grouping of alternate members, which had been begun in the horizontally ceiled buildings of Saxony, was thus brought, by logical steps, to its full perfection. It was no longer restricted to the lower parts of the building, but included two windows, as well as two arcades, between the pilaster strips and arches in relief. The walls, which had previously been perfectly plain, and entirely dependent upon the effect of colored decorations, received an organic memberment, most ingeniously devised in constructive respects. The piers were not transformed in plan merely for decorative purposes, their mouldings henceforth became of structural significance, and, as supports of the vault, were carried above the horizontal cornice to a level with the window arches,—maintaining the unity of the nave, especially in regard to vertical dimensions. The horizontal cornice, however, was still retained to indicate upon the inner side of the clerestory walls the height of the side aisles. In conformity with the transcendental tendencies of the Middle Ages, the vertical lines were predominant and strongly marked, in the same manner as the well-balanced horizontality of the architecture of Greek antiquity corresponded to the more mundane and normal ideals of classic culture. This tendency was so strongly felt that vertical memberments were introduced even in positions for which they were less adapted. The secondary piers, which did not directly support the vault, were provided, like their neighbors, with pilasters, or engaged columns, so rising above them as to form the impost for two semicircular arches in relief above the clerestory windows. The functions of these uprights were decorative rather than constructive, and their systematic introduction proves that the opportunity for vertical divisions was sought even beyond the limits of structural significance.

This enrichment of the interior was not without its effects upon the outside of the building. The semicircular projection of the apse was generally provided with a memberment of engaged col-

umns and arches in relief, which, appearing as a framework for the windows of the crypt as well as those of the principal choir, were almost always arranged in two stories. To this was added the gallery of diminutive columns as a main frieze and cornice, this being frequently extended to the adjoining parts of the building, so as even to ascend the gables of the transepts and of the eastern front. These so-called dwarf galleries were common only in the Rhenish countries and in Northern Italy; they appear to have originated in Lombardy, and are not known to have been introduced in the North before the erection of the double church of Schwarzherrndorf, near Bonn, built in 1151. The pilaster-strips of the side walls were increased in importance, as abutments of the transverse arches of the vaults, and were consequently multiplied and strengthened. The sides and soffits of the windows were commonly decorated with engaged shafts and mouldings, while the portals were far more elaborated than they had been in the horizontally ceiled Romanic basilicas. The towers attained to a greater individuality and a more ingeniously devised decorative treatment, the improvement being particularly evident in the heavy piles rising above the intersection of the transept and nave. These superstructures were henceforth generally of an octagonal plan, much lightened in effect by frequent perforations and by a charming termination of dwarf galleries, this being the case even when the side walls were carried up in gables so as to give the surfaces of the roof a diamond shape, and cause them to intersect in the main axes of the plan.

It is not definitely known in which church the vaulted construction was first introduced, but it is certain that the important Rhenish cathedrals of Mayence, Speyer, and Worms, and the Abbey Church at Laach were among the earliest structures of the kind, and it is not improbable that the priority among these is to be ascribed to Mayence. It was originally built between 978 and 1009, and, having been destroyed by fire on the day of its consecration, was once more completed as a horizontally ceiled basilica in 1036. In 1081 it was again burned down, and, after this second catastrophe, seems to have been re-erected with the adoption of a vaulted construction throughout. Its ceilings of masonry did not entirely protect it from other conflagrations in 1137 and 1191, but the piers

and walls remained intact, although the vaults at present existing were executed after the last-named date. The architectural character of the edifice is primitive and rude, but certainly substantial and dignified (*Fig. 163*). The Cathedral of Speyer, which is but little more recent, is of a much finer design, and certainly deserves to be considered as the most important monument of the Romanic style, at least in Germany, from its grand dimensions as well as from its ingenious and effective construction and details (*Figs. 161 and 162*). At the death of the founder of the building, the Emperor Conrad II., A.D. 1039, only the crypt had been completed, and the consecration which is known to have taken place in 1061 probably had reference only to the choir, as the structure was not finished until

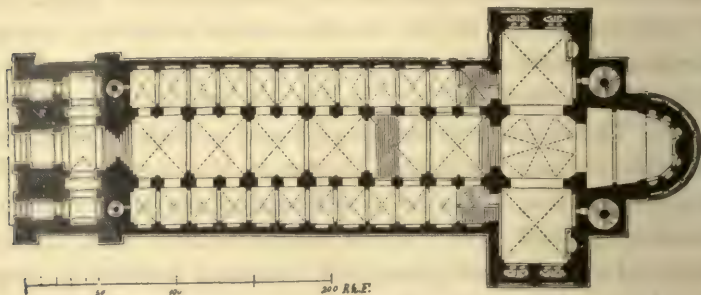


Fig. 161.—Plan of the Cathedral of Speyer.

the twelfth century. The plan, however, by which the piers were intended to serve as supports of the main vault is certainly referable to the eleventh century, and in view of the slight difference in age between this building and the Cathedral of Mayence (*Fig. 163*), it is reasonable to ascribe the far greater perfection of the former to the artistic ability of its architect, rather than to any appreciable advance in the development of the style. The impost cornices of the piers, carried around upon all sides, the pilasters, continued to the spring of the main vault, the columns of semicircular plan engaged to these strips and providing the impost for the transverse arches, the arcades in relief above the clerestory windows, the third small window at the top of each compartment, etc., though exhibiting the primitive and uncertain design of an innovation, are unquestionable evidences of originality and entire emancipation from the classic

traditions (*Fig. 164*). The same proud independence is recognizable upon the exterior. The fine dwarf-gallery was, however, rebuilt after the fire of 1159, while the western front is modern.



Fig. 162.—View of the Cathedral of Speyer.

The combination of the system of Mayence with that of Speyer, which appears in the Cathedral of Worms (*Fig. 165*) was not entirely successful. The latter structure is supposed to have been consecrated in 1118, by which time the design of the models had

been determined in the most important features. It is beyond doubt, however, that the reconstruction of 1183 introduced many modifications which naturally must have been based upon the ar-

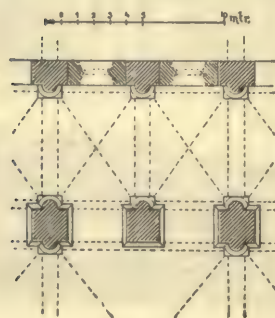
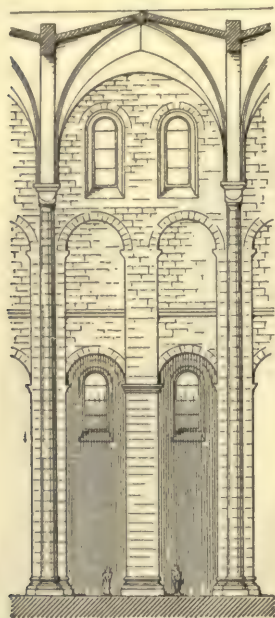


Fig. 163.—System of the Cathedral of Mayence.

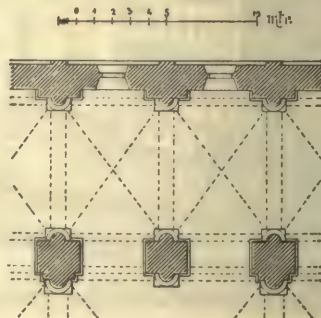
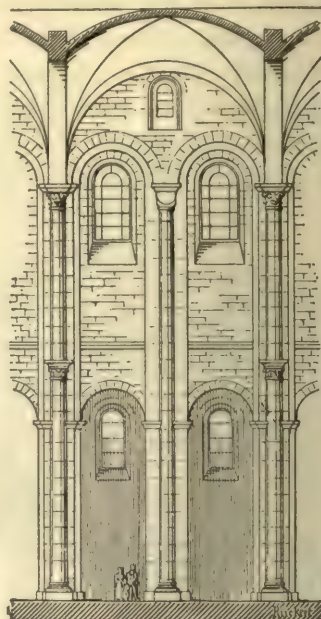
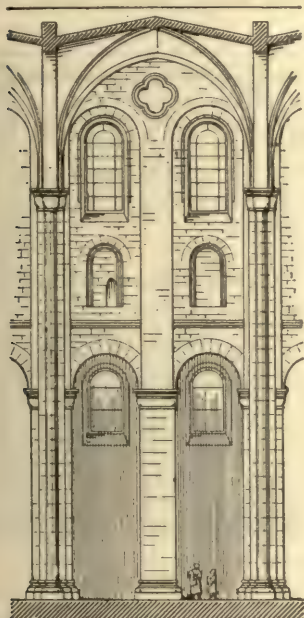


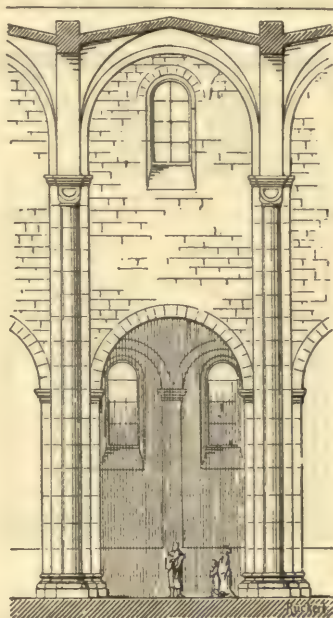
Fig. 164.—System of the Cathedral of Speyer.

rangement of the before-mentioned prototypes. In contrast to these three cathedrals the Convent Church of Laach (*Fig. 134*), built between 1093 and 1156, displays the first attempt to employ

all the piers to support the vaulting of the nave, in the same manner as they did that of the side aisles. This resulted in the piers being placed at greater distances, and treated alike with pilasters



0 1 2 3 4 5 10 m.



0 1 2 3 4 5 7 m.

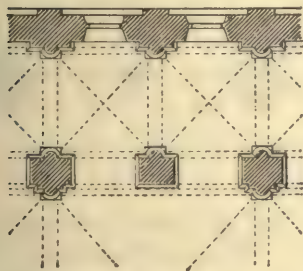


Fig. 165.—System of the Cathedral of Worms.

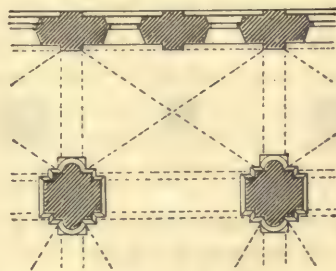


Fig. 166.—System of the Convent Church of Laach.

and engaged columns, which were continued to the impost of the vault (*Fig. 166*).

Compared with these vaulted edifices, those of the Lower Rhine,

grouped around Cologne, were decidedly inferior, especially in regard to the structural arrangement of the compartment systems. The Church of St. Mauritius, finished shortly before 1144, has an exceedingly low nave and simple piers, with pilaster-strips ad-

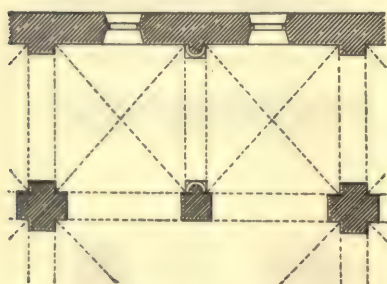
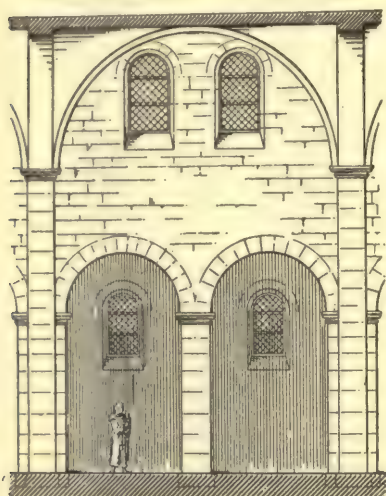


Fig. 167.—System of the Church of St. Mauritius in Cologne.

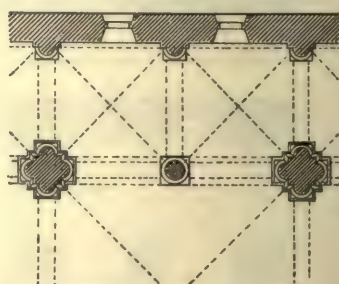
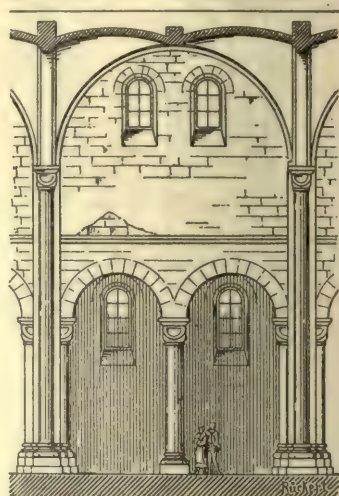


Fig. 168.—System of the Convent Church of Knechtsteden.

joined to the supports of chief structural importance, while in the side aisles a rhythmical alternation is attained by columns engaged upon the intervening piers and the wall opposite to them (*Fig. 167*). In those cases where primitive basilicas with piers in the nave were subsequently vaulted, the treatment was even more

simple. At times the square piers were transformed as much as possible, the supports of the vault being provided upon all four sides with engaged columns, so as to appear like a bundle of shafts, while plain cylindrical columns were employed for the intervening members which had been relieved from the weight of the greater part of the superstructure; an instance of this is the Church of the Premonstrants at Knechtsteden near Dormagen (*Fig.* 168). The same alternation of piers and columns, with a simpler treatment of the supports of the vault, which were only provided with pilasters, is exhibited by the Church of the Augustines at Klosterrath, near Aix-la-Chapelle, begun in the same year as the preceding.

The most remarkable peculiarity of the Romanic churches in Cologne and its neighborhood is that formation of the choir and transept which had appeared in the Church of St. Mary of the Capitol (*Figs.* 169 and 170), perhaps even as early as the Carolingian period. The mortuary chapel at Schwarzhendorf near Bonn, and especially Great St. Martin and the Church of the Apostles in Cologne, exhibit further developments of this attempt to combine the concentric arrangement with the basilical plan through such alteration of the transepts as to give them the character of grand apses. The introduction of this system was probably less due to the influence of the domed structures of Byzantium than to a desire to meet the thrust of the vault above the intersection of the transept and the body of the church by the abutment of three conches upon the sides not supported by the vault of the nave: the hemispherical vaults of the apses acting as flying buttresses in the same way as did the inclined barrel-vaults of the gallery of the Minster of Aix-la-Chapelle. Archbishop Arnold, the founder of the double church at Schwarzhendorf, had, shortly before the erection of the structure in 1151, visited Constantinople, and may consequently have brought back with him the traditions of Byzantine architecture. The Church of Great St. Martin (*Figs.* 171 and 172) is but little more recent, its choir and transept having been consecrated in 1172, while the completion of the nave was delayed until the thirteenth century. The design of the Church of the Apostles antedates the conflagration of 1199, although the vaulting was not carried out until 1219. This building is the most success-

ful as well as the most recent of the group to which it belongs, its greatest charm being the harmonious relation of its outward ap-



Fig. 169.—View of the Interior of the Church of St. Mary of the Capitol in Cologne.

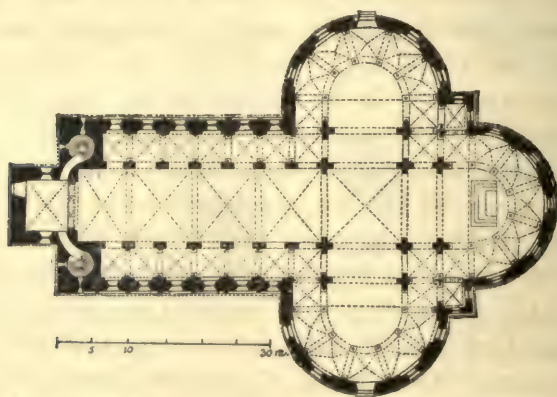


Fig. 170.—Plan of the Church of St. Mary of the Capitol in Cologne.

pearance to the interior construction. In it the dome above the intersection of the transept and nave is not only emphasized upon the exterior as a cupola,—a decided improvement upon the heavy

superstructures of Schwarzhof and Great St. Martin,—but the flanking towers attain a higher development, being cylindrical

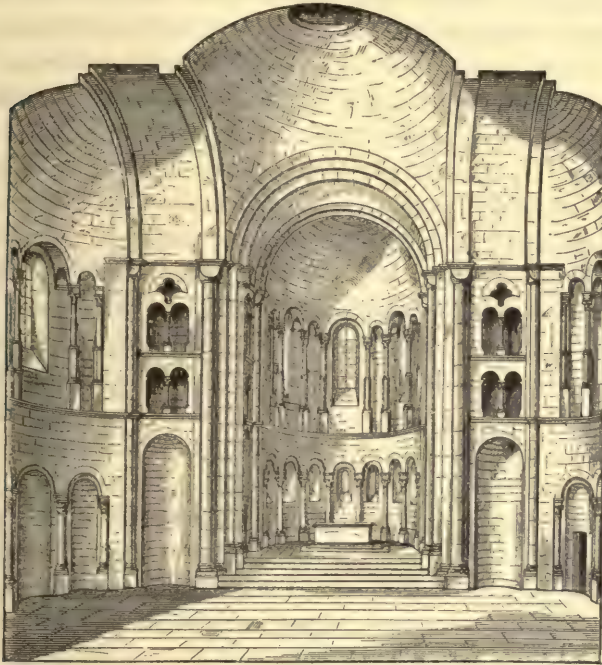


Fig. 171.—View of the Interior of Great St. Martin in Cologne.

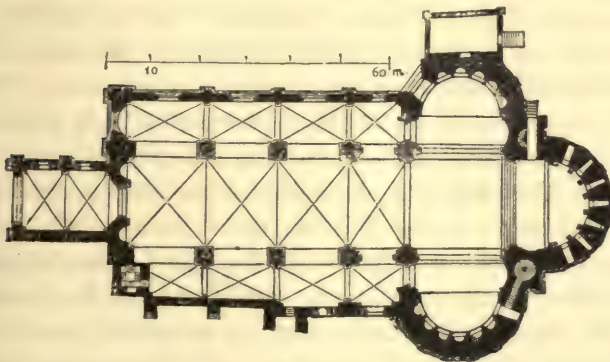


Fig. 172.—Plan of Great St. Martin in Cologne.

below and octagonal above, while excellently placed in the angles between the three conches.

Vaulted constructions early appear on the right bank of the Rhine in Westphalia,* but their execution is clumsy and inartistic, especially in those cases where vaults were introduced into basilicas which had been originally covered with horizontal wooden ceilings. Even those buildings, designed with reference to the employment of vaults, retain a character of massive simplicity, the piers being provided with pilasters which support the heavy ribs of the vault. In some of the churches the influence of the before-mentioned Rhenish buildings of Knechtsteden and Klosterrath is apparent, especially in respect to the alternation of columns as intervening supports, this being the case in the Church of St. Kilian at Luegde near Pyrmont, in that of St. Peter at Soest, etc.

In the Saxon provinces, even after systems of vaulting were engrafted upon the basilical plan, the corresponding development of the supports was long delayed. In the reconstructions dating to this age attention was devoted to the elaboration of the capitals and cornices rather than of the shafts. An instance of this is the Church of St. Michael at Hildesheim, rebuilt between 1162 and 1186, after having been destroyed by fire. In the convent churches of Gandersheim and Wunsdorf, on the other hand, which were restored at about this time, the piers, alternating with two columns, were strengthened by pilasters. In entirely new constructions, such as the City Church of Freiberg in the Erzgebirge, the plan of the piers was of course calculated for the support of vaults. In this edifice, and especially in its famed Golden Portal, the decorative elaboration is more important than the constructive advance. The piers of cruciform plan in the Cathedral of Brunswick, built between 1172 and 1194, were evidently designed with especial reference to their functions as the supports of vaults. This edifice served as the model for a number of churches in Brunswick and its vicinity.

The Saxon colonists of the North German Lowlands† appear to have been more influenced by the architecture of Westphalia than by that of Saxony. In this district no memorials antedating the twelfth century have been preserved. The Romanic style, which

* W. Luebke, *Die mittelalterliche Kunst in Westphalen*. Leipzig, 1853.

† F. Adler, *Mittelalterliche Backsteinbauwerke des preussischen Staates*. Berlin, 1859.

had been developed in reference to a masonry of stone, was here greatly altered in character by the general employment of bricks,—the great plain of the north furnishing no other building material. The few edifices which were in part built of stone obtained from erratic boulders, such as the Church of St. Godehard in Brandenburg, and the Cathedral of Havelberg, dating to the last half of the twelfth century, are much more rude and formless than the contemporary churches of Saxony and the Rhenish countries, this being in some measure attributable to the intractable nature of the material. The structures of brick did not attain to an artistic development before the erection of the Basilica of Jerichow, A.D. 1144 to 1160. The capitals of the buildings belonging to this class are formed of plane surfaces like those of Byzantium, with triangles which, instead of being rounded like the lower part of the normal Romanic capital, have their points downward. But, while the column was simplified, the corbel-table became more elaborate, its intersecting arches being of exceedingly rich and varied effect (*Fig. 173*). The vaulted system was not fully established until the end of the twelfth century. The Cathedral of Lubeck, founded



Fig. 173.—Corbel-table from the Convent Church at Jerichow.

in 1171, is the oldest example of this manner of construction, but only a small part of the edifice now remains in its original form. To the same age are referable the important churches of Arendsee and Diesdorf in the Altmark, the piers of which are also provided with pilasters and engaged columns (*Fig. 174*).

In Hesse, Franconia, Bavaria, and the Austrian territories the introduction of vaulting exercised no important influence upon the formation of the plan and the exterior until the period of transition to the Gothic style. A somewhat greater architectural activity was developed in Suabia and Alemannia, in which countries, much affected by the artistic traditions of the Lower Rhine, the peculiar mobility and imaginativeness of the inhabitants favored the elaboration of ornamental details, and especially the employment of animal forms in this connection. On the left bank of the Upper Rhine vaulting was early practised and systematized. In Alsace various

forms of the vault were combined with the methods of building which obtained in the Middle Rhenish districts. In Murbach, for instance, the Convent Church of Laach is imitated, and if the Church of St. Fides in Schlettstadt was really finished in its present form in the year 1094, as some authorities have been induced to believe by documentary evidence, it certainly displays an exceptionally early employment of the pointed arch. The case is, however, probably the same with this building as with the Church of Rosheim, the pointed arcades of which are not contemporary with the original structure consecrated in 1049. The façade of the latter building,



Fig. 174.—Longitudinal Section showing the Southern Side of the Convent Church at Diesdorf.

with its classic gable and acroteria, is without doubt referable to the Italian influences felt during the later period of the Hohenstaufens.

The Rhenish traditions were maintained during the twelfth century in the Franche Comté as well as in Lorraine and the Netherlands, the former district being remarkable for the contrast which its buildings, notably the Cathedral of Besançon, present to the style of Southern France. In the Netherlands, on the other hand, no attempt was made until the beginning of the thirteenth century to take advantage of the Rhenish system of vaulting the nave and side aisles, notwithstanding the fact that domes similar to those of the Carolingian epoch were built as late as the twelfth

century, as, for instance, in the Church of St. Macarius near St. Bavo in Ghent.

The successful exertions which were made in ecclesiastical architecture from the earliest ages of the Romanic epoch were not at first extended to domestic buildings. The only dwellings of interest to the history of art, even in the later development of this style, were the convents and the castles of the nobles.

There are many accounts of the construction or restoration of cloisters after the establishment of the German empire, but it is probable that even those founded by King Henry I., who died in 936, and by his pious wife, Mathilde, who outlived him for thirty-two years,—such as the College of St. Servatius and that of St. Wipertus in Quedlinburg, the Monastery of Poelde and the nunneries of Nordhausen and Enger,—were not more important in artistic respects than were the Carolingian convents of Herford, Boedecken, Hirsau, the upper Minster of Ratisbon, Hersfeld, Lammspringe, Bersen, Freckenhorst, Herzebroch, Neuenheerse, and Wunsdorf; and it is to be assumed that they were far less important than those of Gandersheim and Essen, and especially those of Fulda, Corvey, and St. Gall. The cloisters, founded by less powerful and wealthy patrons, must have been decidedly inferior. Among these may be mentioned the Nunnery of Ringelheim, founded in 932 by Count Immod, a brother of Queen Mathilde, that of Fischbeck, on the Weser, established in 934 by Frau Hilleberg, and the Monastery of Groeningen, built between 936 and 940 by Count Siegfried of Hardgau.

The expenditure for convent buildings was not great during the reign of the Ottos, although much attention was paid, about the year 1000, to the erection of imposing convent churches. We have no reason to attribute an independent architectural importance to the cloister of St. Maurice of Magdeburg, or the Great Minster of St. Felix and St. Regula in Zurich, both of which were built by Otto II. The most noteworthy of the establishments founded by his sons were the Monastery of St. Pantaleon in Cologne, built by Bruno, who died in 965, and that of Tegernsee, founded in 979 by Otto II., and governed between 982 and 1001 by the energetic Ab-

bot Gozbert. The other convents dating to this period were less important. Among them may be mentioned Schildesche, A. D. 939, St. Peter at Mayence, A. D. 944, Walbeck, between 941 and 996, Hillersleben, A. D. 958, Gernrode and Hilwartshausen, A. D. 960, Hadmersleben, A. D. 961, Eltenberg, A. D. 963, Kalkberg, before 965, Gerbstaedt and Oehningen, A. D. 965, Hesslingen, A. D. 969, Gladbach, A. D. 974, Memleben and Nienburg, A. D. 975, Alsleben, A. D. 979, Hecklingen, A. D. 980, Petershausen in Constance, A. D. 983, and Seltz, A. D. 996.

None of the establishments founded in the eleventh century were equal in extent to the Convent of Fulda or to that of St. Gall, the centralization of the monastic orders being no longer the same as that which had led to the before-mentioned structures, or to Monte Casino in Italy and Cluny in France. Although not one cloister has been preserved to give us a distinct idea of the arrangement and appearance of the convents of this period, yet certain fragmentary remains seem to indicate that the type which had been determined in the Carolingian epoch by the plan of St. Gall was but little altered. A square cloistered court usually adjoined the church upon the south, serving in the later period as a burial-place for the brethren. Of the three sides of the building surrounding the court, that upon the east contained in the lower story the chapter-house, and above, the dormitory; that upon the south, opposite to the church, the refectory and the offices appertaining thereto; while that upon the west was employed below as a store-house, and above as a hospitium. The spaces which, in St. Gall, had been separated and dispersed were thus crowded together. To compensate for this, the court attained a much higher architectural development, being surrounded by cloister arcades which, as part of the lower story, were opened towards the court, like the peristyle of the antique dwelling, thus providing a protected passage and an agreeable place of resort for the inhabitants. The advantages offered by an arcade caused the windows opening to the court, which had appeared upon the plan of St. Gall, to be in later times gradually extended to real cloisters. In the older parts of the court of the Nonnberg at Salzburg (*Fig. 175*), which probably date from the end of the eleventh century, the openings still retain a window-like character,

although the engaged columns of the walls between the apertures indicate the progressing development of the arcades. This peculiarity appears in the southern arcade of the Cloister of St. Peter in Salzburg, which, although somewhat more recent, displays the same resemblance of the bases of the columns to the capitals. The walls were soon cut away, with the exception of a low parapet, above which they were replaced by ranges of columns connected by arches. At first piers alternated with round shafts, as, for instance, in the cloister of the Collegiate Church at Berchtesgaden, built between 1109 and 1122, the piers of which are roughly decorated in relief,



Fig. 175.—Detail of the Cloister of the Nonnberg at Salzburg.

while the columns are coupled, in order to make up the thickness of the wall. Most of the cloisters of the period may be assumed to have resembled this structure, the round arched or Gothic cross-vaults at present seen having been added at a later time. The cloister of St. Zeno, near Reichenhall, is the best preserved specimen of an arcade supported only by columns; the capitals of its coupled shafts are remarkable for their sculptured decorations of figures, chosen mainly from animal fables. The older parts of the cloister of the Frauen Minster in Zurich also date from the middle of the twelfth century, while the remarkably fine arcades of the Great Minster (*Fig. 176*) of that place were built about the year

1200. The arcades are divided, by discharging arches above the piers, into groups, each of which contains two columns, the memberment of the supports and of the ribs of the vaults being varied and of good effect. When the weight of the superstructure rested upon the piers, as in the instance last mentioned, it was possible to employ small single columns, which were brought into connection with the wall above them by means of projecting imposts. Other cloisters of the Romanic period, like that of St. James in Ratisbon, or that of the Church of St. Saviour at Milstadt, display the forms of the transitional style of the thirteenth century,—or, as in the case

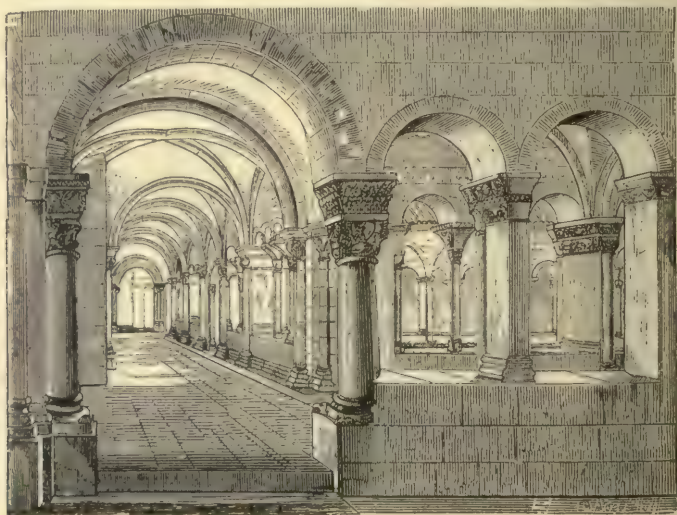


Fig. 176.—Cloister of the Great Minster of Zurich.

of Maulbronn, have received such extensive additions that they are rather to be classed with the structures of the Gothic period.

A peculiar feature of the cloisters is the fountain of the court, usually projecting from the side of the refectory. The appearance of this structure depended upon the nature of the water supply; as it was covered, it naturally received the form of a pavilion, treated in the same manner as the surrounding cloister arcades, and provided with stone seats. In some collegiate churches, and especially in the adjuncts of cathedrals, the place of the fountain was taken by a small chapel, a noteworthy instance of which is the Romanic

dome, with apses upon three sides, standing in connection with the more recent cloister of the Cathedral of Ratisbon.

The halls of the convents long remained bare and without architectural interest, their horizontal ceilings being at first supported by beams of wood. It was not until the end of the eleventh and the beginning of the twelfth century that the introduction of vaulting led to a monumental treatment of the piers and columns. In the eastern wing of the Cloister of Bebenhausen in Wurtemberg there are three halls, two of which contain four columns; the six shafts, introduced into the third, support a pointed vault of the Gothic period. The fine halls of the Abbey of Maulbronn,* the best preserved of the mediæval cloister enclosures, are only in part referable to the Romanic epoch: the chief hall, with the central range of seven coupled columns and cross vaults without ribs, having been built in 1201, while a vaulting in the magnificent refectory, supported by three principal columns and four smaller intervening shafts, betrays, by the introduction of pointed forms, the influence of the transitional style.

In the eleventh century the castles of the feudal nobles gradually became of independent architectural importance. These structures commonly stood in the midst of a small area, fortified by high walls, the site of which was so chosen as to profit as much as possible by the natural protection afforded by steep cliffs or by water. Their portals, being designed with especial reference to great defensive strength, exhibited from the first a certain monumental character. Otherwise there was, at least during the eleventh century, only one building within the enclosure which deserves to be considered in this connection, namely, the barbacan (*Fig. 177*), a tower serving at once as a lookout and as a last refuge for the defenders. Its enormously thick walls, more frequently of round than of square plan, left but small chambers in the interior. These were lighted by narrow apertures, and could only be entered through a door (*a*) situated at some height above the ground and reached by ladders. The lowest story (*b*) contained the high and narrow dungeon, access to which was provided by an orifice (*c*) in the apex of

* E. Paulus, *Die Cistercienserabtei Maulbronn*. 2d edition. Stuttgart, 1882.

its vault. The three or four upper chambers, increasing in size from story to story as the walls diminished in thickness, were also only to be reached by ladders. The summit was terminated by a battlemented platform (*e*). The development of the barbacan to a habitable castle, like the donjons of France and the keep-towers of England, was rare in Germany,—that of Rauschenberg, near Marburg, being exceptional.

During the eleventh century the parts of the castle used for habitation were entirely of wood, and even at the beginning of the twelfth, masonry was but rarely employed for the halls and dwell-

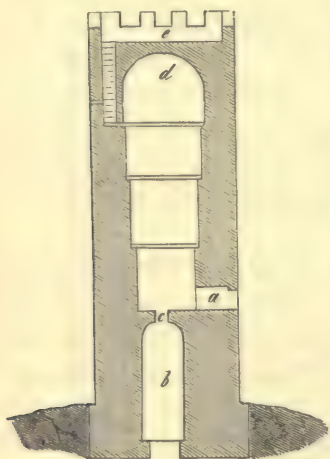


Fig. 177.—Barbican of Sonnenberg, near Wiesbaden.

ing-rooms. This is the case with the Niederburg, near Ruedesheim, the barrel and cross vaults of the interior being probably referable to the first construction, while the rude stonework of the exterior, altogether without memberment or decoration, was executed at the beginning of the twelfth century (*Fig. 178*). We have no reason to attribute any especial architectural interest to those castles of the eleventh and twelfth centuries concerning which we have documentary information, or of which remains have been preserved; among them may be mentioned Hammerstein near Fornich on the Rhine, Boeckelheim

near Kreuznach, Kiburg near Zurich, Habsburg in the Aargau, and Persenberg near Grein, on the Danube. The masonry of the last of these castles was so inadequate in constructive respects that, in the year 1045, it fell in consequence of the floor of the hall giving way under the weight of the assembled guests. In the lowlands of Flanders the fortifications commonly consisted of palisades and ramparts of earth, but in mountainous districts the strongholds were not unfrequently excavated from the native rock itself, as is the case with Fleckenstein, near Weissenburg in the Vosges.

The dwellings and palaces of the citadels did not attain a monu-

mental and artistic character until the middle of the twelfth century. The general arrangement of these was the same as before, the ground-floor containing magazines, while the upper stories were occupied by halls with or without smaller chambers at the ends. Greater care was, however, taken with the construction of the interior, while the outer walls were ornamented with the forms which had been developed in the ecclesiastical buildings,—with rhythmical groups of windows or of columned arcades, corbel-tables, pilaster-strips, arches in relief, exposed stone staircases supported upon vaults, etc. The Palace of Dankwarderode (*Fig. 179*) in Brunswick, concerning the arrangement of which in the time of Henry the Lion, A.D. 1150 to 1170, recent investigations* have thrown much light, was of extreme simplicity. Its position was strengthened by the vicinity of the river Ocker. The ground-floor, lighted by small windows, was divided longitudinally by a range of piers connected with arcades, while the entire upper story, with the exception of a corridor and the so-called *caminata*,

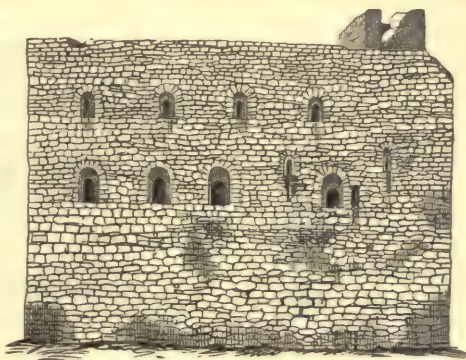


Fig. 178.—Northern Side of the Niederburg at Ruedesheim.

was occupied by one large hall. The living-rooms were separated from the palace and grouped around the free-standing, two-storied chapel. A similar arrangement is evident in the remains of the castles belonging to the Rhenish countries and the adjoining districts, such as St. Ulrich, Giersberg, Rappoltstein, Hohenegisheim, Ortenburg, Plixburg, and Landsberg in Alsace; Trifels and Kaesenburg in the Rhenish Palatinate, Minzeberg in the Wetterau near Frankfort-on-the-Main, Seligenstadt on the Main, Salzburg in the Saalgau north of Wurzburg, Reichenstein in the Taunus, Buedingen and Roppershausen in Hesse, Steinfurt in Westphalia, Cobern on

* L. Winter, *Die Burg Dankwarderode zu Braunschweig*. Braunschweig, 1883.

the Moselle, Vianden in Luxemburg. In Eastern Germany, on the other hand, there are no distinctively Romanic remains of castles, and the same is the case with the south, where only Schloss Tirol, near Meran, is to be mentioned.

The imperial palaces of the Hohenstaufens were of very considerable dimensions, chief among them being the castle of Eger and that of Goslar. The first of these, which came into the possession of Frederick Barbarossa as the dowry of his first wife Adelheid, and was provided by the Emperor himself with a fine double chapel, still displays the simple forms of the first half of the twelfth century. The halls occupy the entire width of the building, being without central supports and without a corridor. They are indicated upon

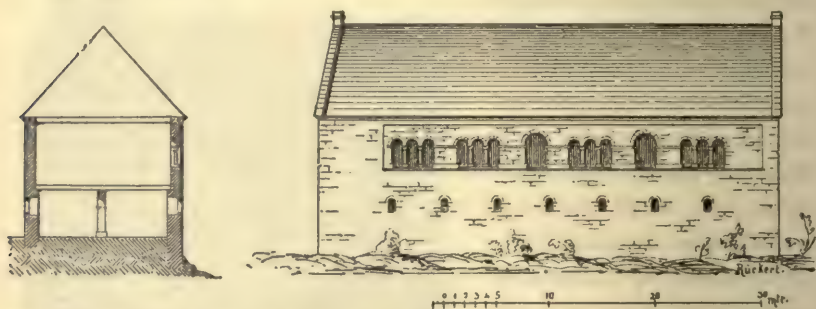


Fig. 179.—Restored Section and View of the Eastern Façade of the Palace of Dankwarderode in Brunswick.

the exterior by groups of arched windows, while smaller apertures give light to the adjoining chamber. The Imperial Palace at Goslar, originally founded by Henry III., and consequently the oldest of all those which have remained to the present day, is superior to the Castle of Eger both in dimensions and in artistic importance. The enormous hall which occupies the entire upper story is 55 m. long and 16 m. wide; it is opened to the court in arcades, the piers of which, connected by arches, combine three smaller arcades supported upon columns, to a single system. This magnificent hall, which has never been without the protection of a roof, has unfortunately suffered so much from restorations that its original appearance is no longer evident.

A greater interest is hence attached to the Imperial Palace of

Wimpfen am Berge, and especially to that of Gelnhausen, although both of these are of considerably smaller dimensions. Little more has remained of the former than the five arched windows, some of the columns of which consist of four shafts twisted to a knot in the middle, while the capitals display a great variety of forms. Gelnhausen (*Fig. 180*), finished in 1170, exhibits, on the other hand, an extremely tasteful memberment of the two-storied arcades by pilaster-strips, which are connected at the top by cornice arches. The three stories are provided, on the side towards the court, with a corridor similar to a cloister, and between the hall and the barbican there is a two-aisled portico, the vault of which is supported in the middle by two columns. A chapel surmounts this latter structure.

The finest of all the Romanic palaces is, however, the Wartburg.

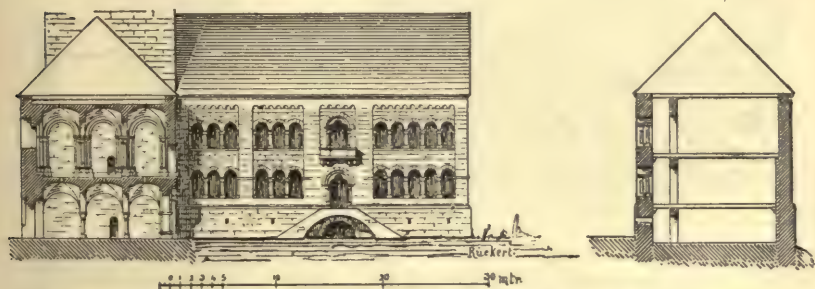


Fig. 180.—Restored Section and View of the Imperial Palace of Gelnhausen.

This building is rendered important by its exceptional state of preservation and the skilful and conservative manner in which it has been restored, as well as attractive by the picturesqueness of its site and the associations connected with it. It was founded in the eleventh century by the Landgrave Ludwig der Springer of Thuringia, and, with the exception of the fortification walls and the two towers built in 1067, was constructed entirely of wood. Tradition assigns the rebuilding of the whole in masonry to the Landgrave Ludwig III., A. D. 1130 to 1150, and the addition of the upper story to the Landgrave Hermann I., about A. D. 1190. It is certain that a considerable part of the edifice dates to the beginning of the fourteenth century (*Fig. 181*).

As usual, the façade towards the court is most richly treated,

the three stories of round arched windows diminishing in size as they ascend. The ground-floor, 39.5 m. long and 15.5 m. broad, contains at either end two square chambers, each of which is covered by four cross-vaults, the transverse arches being supported in the middle of the space by a column. That upon the north served as a kitchen for the central dining-hall, while that upon the south was occupied by the women. The principal story was of corresponding arrangement, the chamber of the landgrave being on the northern side of the festival hall, while upon the south was the room of the singers and the chapel. The upper story, occupied in its entire length by a hall, was rendered especially imposing by the corridor on the side towards the court being provided, both within and without, with

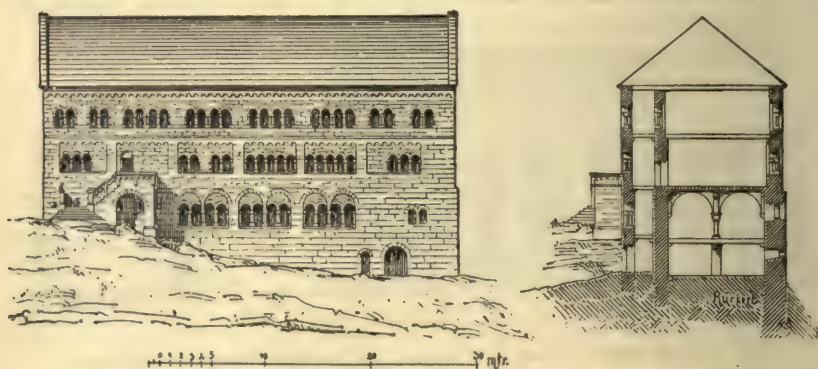


Fig. 181.—Western Façade of the Palace of the Wartburg.

round arched windows. Hooded chimneys, with apertures through the walls for the escape of the smoke, niched windows, small connecting staircases, and other conveniences, give an exceptionally clear and favorable idea of the palace constructions of the Middle Ages, although many of these features are of later date than the period now in consideration.

An important feature in the arrangement of these castles was the two-storied chapel, which was commonly situated, together with the smaller chambers, in one of the ends of the structure. Noteworthy examples have remained in good preservation in Eger, Freiburg on the Unstrut, Nuremberg, and Landsberg near Halle (*Fig. 182*). The sacred ceremonies were performed before the mem-

bers of the family in the upper story, while the ground-floor, of simpler design and of heavier and lower proportions, was intended for the menials, who could hear the voice of the priest through an aperture in the vaulting. The chapels were at times isolated, as in Dankwarderode, or connected with the portal, as in Gelnhausen; they were generally of rectangular plan, with four or more columns in the interior, but a concentric arrangement appears in some instances, as at Krukenburg, Vianden, and Cobern. The other structures of the citadel were of an inferior character, and were usually built against the fortification walls.

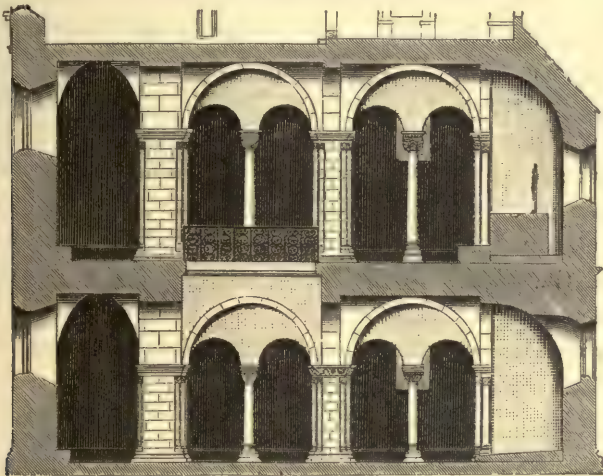


Fig. 182.—Section of the Double Chapel of Landsberg.

The domestic architecture of the middle classes was, before the thirteenth century, entirely restricted to constructions of wood or nogging. The few houses of stone referable to the twelfth century were built by patrician families, who, in some instances, even gave their town dwellings an aristocratic and fortress-like character by the addition of towers, as is evident in a number of houses in Ratibon, and notably in a mansion in the Trinitarier Strasse in Metz, the windows in the lower story of which, however, date to the Gothic period. The dwellings of the common citizens were still built with open arcades on the ground-floor. Their primitive supports of wood were gradually replaced by short and thick columns

of stone, connected by segmental arches, the passage being occasionally covered with cross-vaults. The upper part of these buildings continued to be constructed of nogging, as the custom of projecting the stories by corbels remained in favor.

The civic buildings of this period were not important, even the town-halls and wooden market-halls being insignificant. As the first consideration in the laying-out of the fortified cities was to restrict the area as much as possible, the streets and places were extremely narrow, and suffered all the disadvantages in monumental respects which result from a cramped plan. Stone bridges were rare. That over the Danube at Ratisbon, a remarkably fine work, 321 m. long, built between 1135 and 1146, was without a parallel at the time of its erection. There now remains but one of the three towers which originally stood at either end and on the middle of the structure. The bridge over the Rhine at Basle, built in 1226, appears not to have been continued in masonry beyond the six arches now preserved. Works of this kind were remarkable for the irregularity of their plan and the fortuitous character of the levels and the main lines of the memberment. The attention of the builders was so exclusively devoted to the stability and practical convenience of their constructions that but little heed was given to the higher qualities of design.



Fig. 183.—Interior of S. Ambrogio in Milan.

ARCHITECTURE OF THE ROMANIC EPOCH.

ITALY.

THE political uncertainty and dissolution of the age of the later Carolingians, felt throughout the Occident, was nowhere of more disastrous effect than in Italy.* The efforts made for centuries by the Lombards to unite the provinces of Upper and Lower Italy into one realm were of no avail, and even the power of Charlemagne was not able to bring about this end. Venice had become still more independent after its fortification in the year 810, while the political isolation of Rome was increased. The Lombardic

* H. Gally Knight, *The Ecclesiastical Architecture of Italy from the Time of Constantine to the Fifteenth Century*. London, 1842.—F. Osten, *Die Bauwerke der Lombardei vom 7.-14. Jahrhundert*. Darmstadt.—A. Ricci, *Storia dell Architettura in Italia del secolo IV. al XVIII.* Modena, 1857 sq.—Ch. E. Norton, *Historical Studies of Church Building in the Middle Ages*. New York, 1880.—C. Boito, *Architettura del Medio Evo in Italia*. Milano, 1880.—O. Mothes, *Die Baukunst des Mittelalters in Italien von der ersten Entwicklung bis zu ihrer höchsten Blüthe*. Jena, 1882-1884.

dukes of Ivrea, Spoleto, and Benevento were but little inclined to accept their position as vassals of the Carolingian emperors, and Apulia, Calabria, and Sicily still remained Byzantine. The three last-named territories suffered much from the invasions of the Arabs, who, after many unsuccessful attempts, took Palermo in 831, and not only occupied the whole of Sicily, but continued their advance into Lower Italy.

It is well known what misfortunes were experienced in Italy by the last four emperors of the Saxon house. As soon as they turned their backs upon that country usurpers sprang up upon every side. In Lower Italy there even appeared a third race of foreign conquerors, the Normans, who at first, A.D. 1003, appeared in small bands of pilgrims, but soon after, A.D. 1022, under the sons of Tancred of Hauteville, made bold claims, not only occupying the county of Apulia, with Melfi as their chief town, but defending this district against the monarchs both of the German and of the Eastern empires, and even against the Pope. Robert Guiscard, who in 1056 had become Duke of Apulia and Calabria, saw the Arabs driven from Sicily by his brother Roger, while he himself carried his victorious arms against the Byzantines into Thessalonica, and even drove the emperor Henry IV. from Rome. After the entire subjugation of Sicily, A.D. 1090, the extensive power of the Normans in Lower Italy might well be compared to the contemporary dominion of their countrymen in England, A.D. 1066 to 1154, founded by William the Conqueror.

The greater part of Italy was thus in the possession of two Germanic races. The northern districts were still Lombardic, at least in artistic respects, and developed a style which was in the main a rejuvenation of the Oriental and early Christian traditions; while the culture of the South under the Normans was combined of Byzantine, Arabian, and Northern elements. The intervening Roman and Tuscan provinces long continued to practise the artistic methods of the early Christians, without originality and without advance, until Tuscany, affected by Lombardic influences, awakened to a more important architectural activity. Byzantine traditions, on the other hand, were revived in Venice, which had succeeded to the inheritance of Ravenna. These four styles often appear side by

side, in comparative purity, as well as blended in various degrees,—it being impossible to define their limits exactly, notwithstanding the admirable investigations of Boito and Mothes. Moreover, the monuments have been so frequently transformed in the course of subsequent centuries, that the part attributable to the different epochs is not always to be determined with certainty.

No memorials have been preserved of the earlier period of the Lombardic occupation more ancient than the churches referable to the age of the archbishop Ambrosius, A.D. 374 to 397. The cruciform plan which had become predominant in Milan was favored by Ambrosius. It appears to have been adopted in the older construction of S. Abondio in Como, of which some remains, dating to the end of the fourth century, have recently been discovered. With this arrangement was early combined the elevation of the choir by the introduction of a crypt. It appears that the Magistri Comacini,* who took their name from the quarries in the neighborhood of the Lake of Como, and were employed as early as the reign of Queen Theodelinde, A.D. 590 to 615, did not owe their great fame to any higher artistic qualities than their training as practical stone-cutters. The constructions of Milan referable to Theodosius and Ambrosius, which combined the style of the Occident with that of Byzantium and Ravenna, were for centuries of decisive influence upon the architectural development of the country. It is certain that the other Lombardic towns of this period present no material innovations, and neither Pavia, Como, Brescia, the cities of the Emilia as far as Bologna, nor the two southern Lombardic capitals, Spoleto and Benevento, display in their architecture any advance beyond the style of the ancient ecclesiastical centre of Northern Italy.

A statistical account of the ecclesiastical buildings of Italy antedating the eighth century enumerates about a hundred basilicas and fifty concentric edifices. In later ages this proportion was changed in favor of the basilical system. After the eighth century, however, the introduction of transepts, of crypts and raised choirs,

* Baudi di Vesme and C. Promis (*Edicta Regum Longobardorum de Structoribus*, Turin, 1847) publish and comment upon the remarkable by-laws of this society, and the privileges conferred upon it, about the year 644, by King Rotharic.

of galleries, and of domes above the intersection of the transept and nave, became more common,—all these features resulting from a combination of Byzantine elements with the early Christian basilical arrangement. To this may be added the attempts to develop new varieties of the Corinthian capital, as well as the preference for surmounted arches without archivolt mouldings. The supports were gradually changed from the ranges of columns universal in the basilicas, to piers or to an alternation of round and square

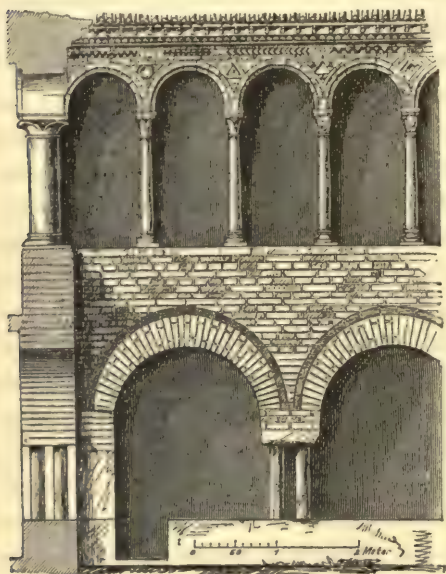


Fig. 184.—Detail of the Cloister in the Convent of Gerusalemme, Bologna. Tenth Century.

shafts. The apertures, on the other hand, were but rarely splayed. Window-glass came into common use after the fifth century, the rough bull's-eyes being often of various colors, but limited to the small holes of the perforated marble slab which formed the frame. During this period lead-glazing was gradually adopted, the colored panes being arranged in mosaic-like patterns. The ceiling was generally not panelled, the open timbered roof of the basilica being retained; nevertheless, the way was prepared for the vaulting

of the nave by the introduction of transverse arches, and by the vaulting of the side aisles, this forming the floors of the galleries. The exterior had no other decoration than the patterns formed by colored bricks, while the cornices were restricted to projecting courses and diagonal bonds of the same material (*Fig. 184*). The lintels of the portals were commonly protected by a discharging arch. The earliest campaniles known date to the sixth century, but such towers did not come into favor during subsequent ages, and were seldom erected in connection with the churches.

As has been shown in a former chapter, there are but few architectural memorials referable in their present state to the time of the Lombardic kings. In like manner the buildings erected in Lombardy during the Carolingian epoch have almost all been entirely transformed by subsequent reconstructions. A notable exception is the Church of S. Ambrogio in Milan (*Fig. 183*), which has retained in its apse and dome the original forms of the eighth century; while among its interior adornments there are still preserved the pulpit of Pemmo, dating to 784, above the sarcophagus of Stilicho, the golden altar of A.D. 822, the tabernacle above it of 835, and notably the mosaic of the apse, executed between 832 and 880. The dome and the termination of the choir present some similarity to S. Lorenzo; but the low proportions of the apse, resulting from the introduction of the crypt, lead to the supposition that it may have belonged to a still more primitive structure. The nave unquestionably formed part of a horizontally ceiled basilica, and received its present form by a later reconstruction, probably dating to the twelfth century. The portico and the atrium, the latter of which was first constructed between 863 and 881, now display in the capitals of their piers and engaged columns features referable to the beginning of the eleventh century; their vaults, corbel-tables, etc., are possibly a hundred years later. The details of the nave, portico, and atrium are closely related to those of the nave of S. Michele in Pavia, built between 1024 and 1155, and to the remains of the Church of S. Celso in Milan, referable to about the same period.

The concentric churches, having been originally vaulted, have preserved more of their primitive construction than have the basilicas. The chief parts of the Old Cathedral of Brescia and of S. Stefano (San Sepolcro) in Bologna antedate the Carolingian epoch; the capitals and corbel-tables of S. Pietro in Asti and S. Tomaso in Almenno near Bergamo (*Fig. 185*), on the other hand, may be taken as a proof of an extensive restoration of these edifices, if not of their later origin. With exception of the round building of Brescia, the arches of which are supported upon clumsy piers, all these structures resemble S. Costanza near Rome, or S. Maria Rotonda at Nocera, their domes being placed upon a circle of columns,

while the surrounding passage is covered with barrel or cross vaults. Galleries, opened to the central space by arches, appear in S. Stefano and S. Tomaso. In like manner as the Cathedral of Brescia influenced the plan of the Minster of Aix-la-Chapelle, buildings similar to that of Almenno served as models for the round churches of Burgundy, Normandy, and England. The Old Cathedral of Arezzo, built towards the end of the ninth century and torn down five hundred years later, was an octagonal structure similar to S. Vitale in

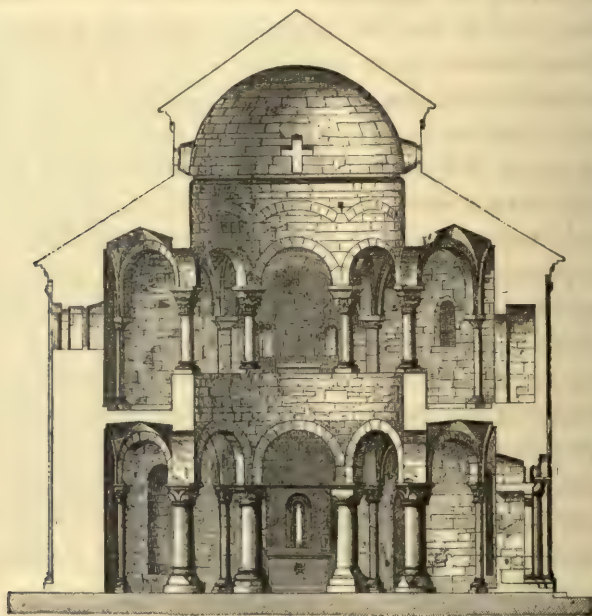


Fig. 185.—Section of S. Tomaso at Almenno. .

Ravenna. On the other hand, the great Baptistery of Florence, the first construction of which is without doubt referable to the Lombards, followed the antique circular system with arches in the surrounding walls,—exemplified in the Baptistery of S. Lorenzo in Milan, perhaps dating to the fourth century, and in that of the Cathedral of Novara, which is a century later. The Baptistery of Parma, built in 1196, was imitated from that of Florence, with greater magnificence than artistic success.

The peculiarly Romanic forms—the cube capital, dwarf gallery,

and arched corbel-table—do not seem to have been employed in Italy before the end of the tenth century. It is the opinion of the writer that the reconstruction of S. Abondio in Como (*Fig. 186*) took place at the time when this church came into the possession of the Benedictine monks, A.D. 1013; if this be true, it is not surprising that cube capitals should appear in the nave of this five-aisled basilica. Still, this form did not become common, the traditional Corinthian and Byzantine varieties continuing in general use.

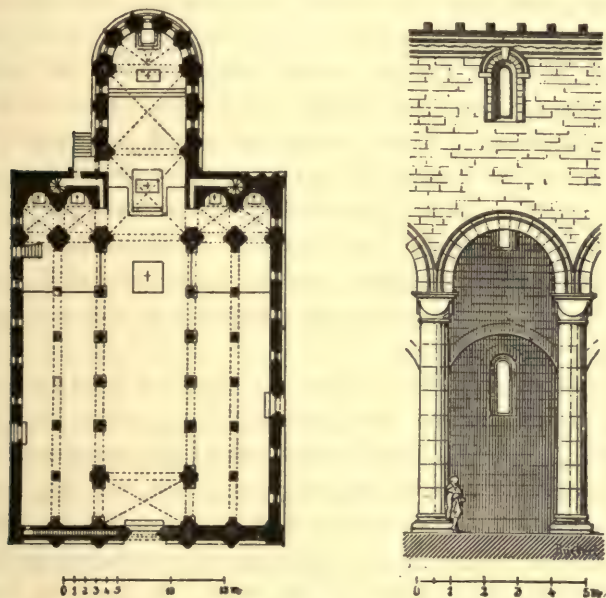


Fig. 186.—Plan and System of S. Abondio in Como.

While the influence of Germany is evident in the cube capital, the Lombardic origin of the dwarf gallery is almost beyond doubt. This elaborate cornice termination seems to have been developed from the arcades in relief of the outer walls, in imitation of the galleries of small columns which had appeared at Spalatro even in the time of Diocletian, and had been adopted in the buildings of the Ostrogoths in Ravenna. But although these dwarf galleries may have been added to the façades as early as the Carolingian epoch, they do not seem to have been generally employed for the cornices

of the apses and towers above the intersection of nave and transept before the eleventh century. It would be a mistake to suppose that a horizontal entablature preceded the arcades connecting these diminutive shafts; for although the gallery of trabeate construction of S. Maria in Arezzo, which was completed in the year 999, is one of the earliest dated examples of this feature, the similar dwarf colonnade upon the apse of S. Frediano in Lucca is known to be as recent as 1260.

On the other hand, it is uncertain whether the characteristic innovation of the arched corbel-table, which was soon extended throughout Western Europe as the substitute for the cornices of bricks formed by projecting zigzag courses, first appeared in Upper Italy or in Germany. Even though the age of the walls be known with certainty, it is always difficult to assign a definite date to the cornice, a member which is affected by every alteration of the roof and ceiling. The position and character of the ornament of intersecting arches which appears upon the tabernacle of S. Ambrogio in Milan by no means proves the existence of the arched corbel-table in the ninth century.

The most important of these questions of priority,—that relating to the appearance of vaulted basilicas,—cannot be answered with certainty. As the greater number of the stone ceilings were at first added to already existing buildings, the beginning was probably made in those which had been provided with transverse arches to relieve in some measure the supports of the clerestory wall from the weight of the roof. S. Zeno in Verona,—the reconstruction of which was begun in 961, soon after discontinued, taken up again in the eleventh century, and completed towards the beginning of the twelfth,—shows that, even in important buildings of the latter period, transverse arches, supporting an open timbered roof and resting upon piers placed between the columns of the nave, were considered adequate for a monumental construction. The interior of this three-aisled basilica is for the most part referable to the eleventh century; in contrast to the Lombardic style, it displays none of the German influences naturally to have been expected in the city which Charlemagne had chosen to be the capital of Italy,—especially as the exterior of S. Zeno itself

and that of other Veronese buildings, such as S. Pietro in Castello, distinctly exhibit the German elements. Another work surely attributable to the Lombards presents a distinct advance in these respects, namely, the Cathedral of Novara, in which four piers of cruciform plan were added to the ranges of columns during a later construction, probably about the year 1020,—these not only supporting two transverse arches above the nave, but a ceiling of stone formed by three cross-vaults. In the primitive basilica the alternation of piers with the columns, the transverse arches, and the compartments thus resulting, had all prepared the way for the adoption of cross-vaults. The barrel-vaults of the nave and the semibarrel-vaults of the side aisles,—which were common in Southern France, and had been introduced in some instances in Southern Italy, such as S. Maria in Altamura and S. Maria Immacolata in Trani,—were not employed in the churches of Northern Italy.

SS. Pietro e Paolo in Bologna (*Fig. 187*) seems to have been originally designed with reference to the introduction of cross-vaulting. Although not susceptible of definite proof, it is probable that the regular alternation of the supports, together with the vaulting, dates to the year 1014, and consequently that the priority in this most important constructive advance is to be ascribed to Italy. The employment of fragments of older buildings, the clumsy memberment of the supports, and the manner of increasing the strength of the wall by rectangular pilasters rising above the engaged columns to the spring of the vault, all give a most primitive character to this church. Compared with the tentative and uncertain system of SS. Pietro e Paolo, the nave of S. Michele in Pavia (*Fig. 188*), slowly built after 1024, exhibits a far higher degree of experience and ability. It was designed with a regular alternation of piers of different strength, and evidently with the intention of introducing a vaulted system similar to that of the former church, but during the construction this plan was so changed that every support was employed as the impost for a separate compartment, in the nave as well as in the side aisles. The same system appears in the Cathedral of Parma (*Fig. 189*), the original structure of which was destroyed by fire in 1058, while the new edifice was so severely injured by an earthquake in 1117, eleven years after its consecration,

that a restoration became necessary, which lasted for more than half a century. These alterations, however, do not seem to have greatly affected the style of the building. The three-aisled body of the church, as is evident from the formation of the piers, was originally designed with reference to five vaults in the plan of each compartment. Nevertheless, the uneven number of the arcades, determined by the retention of the transept and other parts of the original structure, ultimately led to the adoption of simple cross-vaults in the compartments above each arch, the alternation of the piers thus

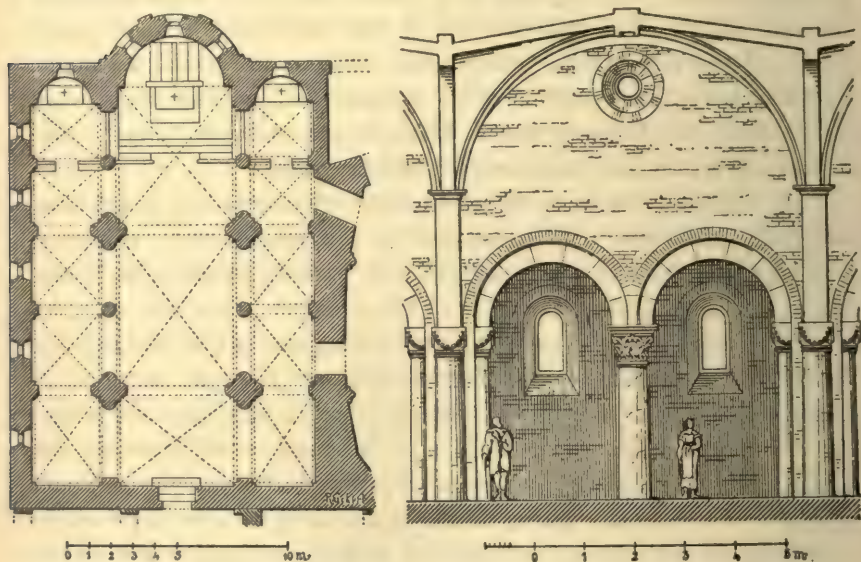


Fig. 187.—Plan and System of SS. Pietro e Paolo.

becoming of no constructive significance. The Cathedral of Modena, the rebuilding of which was begun in 1099, was calculated in plan for five vaults in each double compartment. During the progress of the building the design was so altered as to introduce in the nave a cross-vault above each arcade, and the wall-arches and the console for the impost of the transverse rib were built in accordance with this system. The vaulting was, however, ultimately carried out as originally conceived,—with a simple cross-vault, the static significance of the alternation of the piers and columns thus

being maintained. An unwillingness to increase the height of the nave rendered it necessary to begin the spring of the main vaults upon a lower level than the impost of the previously completed wall-arches of the sixfold system which had been given up, while the transverse ribs became of a pointed shape (*Fig. 190*). Similar to the Cathedral of Modena is that of Ferrara, consecrated in 1135, —an enormous building with a great wealth of sculptured ornamentation, but by no means pleasing in arrangement and proportions, the effect of the interior, moreover, being entirely altered by

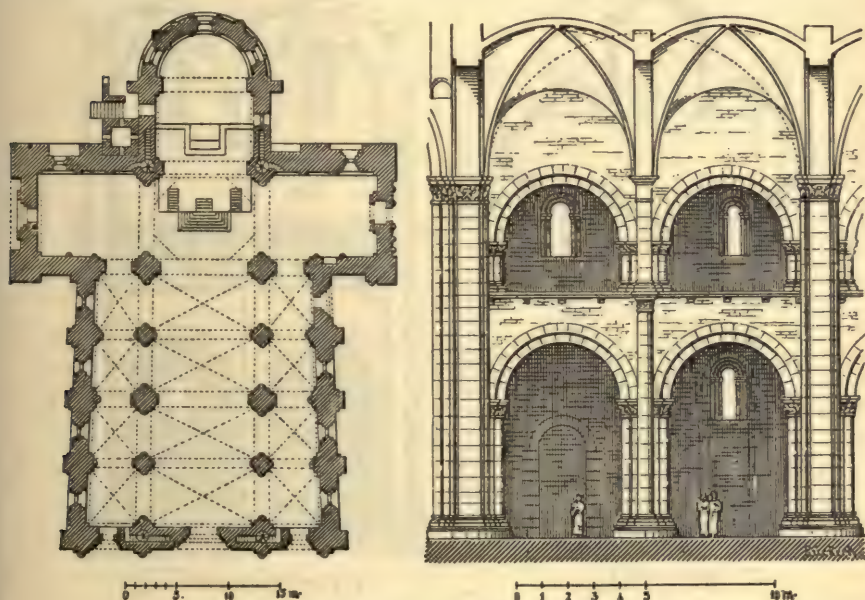


Fig. 188.—Plan and System of S. Michele in Pavia.

modern restorations. Among the chief works of Lombardic architecture must further be mentioned the Cathedral of Cremona, built between 1107 and 1190, of the original form of which little is now evident; and also the Cathedral of Piacenza, begun in 1122, an imposing construction with cylindrical supports and a three-aisled transept. The influence of these structures is evident not only in the Cathedral of Trent, rebuilt after 1124, and in that of Zara, consecrated in 1285, but even in the churches of Normandy, which will be described in the subsequent chapter.

The characteristics of all the Lombardic cathedrals are a basilical façade without towers, effective and elegantly carved portals, and dwarf galleries, which are frequently duplicated and take the place of the corbel-tables on the gables. With exception of the façade of S. Zeno in Verona, which displays German influences, a systematic memberment of the walls was not adopted, so that they did not attain to the vigorous vertical effect of the German cathedrals. Nor can the Lombardic churches be compared with the

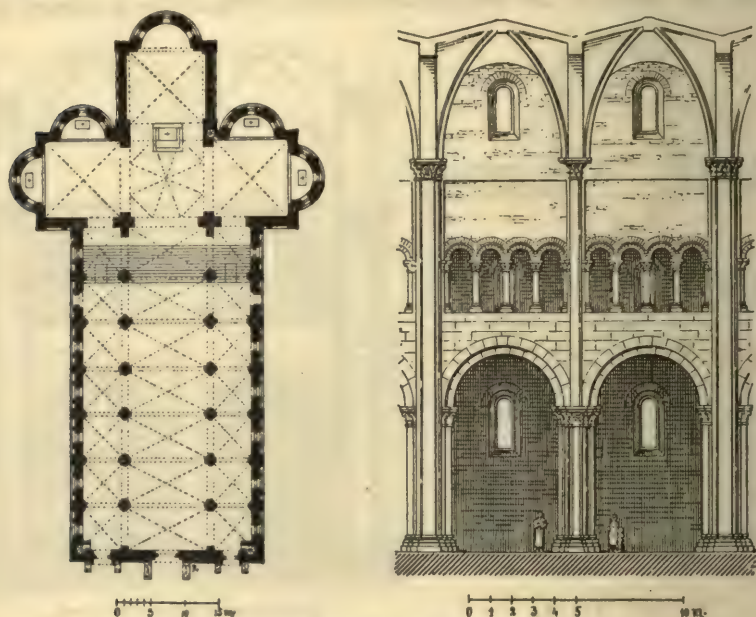


Fig. 189.—Plan and System of the Cathedral of Parma.

Northern edifices in respect to unity of design, their front walls generally not being organically connected with the sides, and consequently giving the impression of a screen placed before the interior.

Venice was the only city of Northern Italy which did not adopt the architectural forms developed in Lombardy. As the most important emporium of the Adriatic and the successor of Ravenna, the town at all times and in every way directed its chief attention towards the East. The political power of Byzantium, which had retained its hold longer in Venice than in any other part of Italy,

furthered these tendencies. Even after the election of the first doge, A. D. 697, when this supremacy had become merely nominal, the artistic traditions of Ravenna and Byzantium not only continued to be cultivated, but were renewed by the direct influence of Constantinople. We are informed that the second construction of S. Zaccaria, in the year 827, was made at the expense of the emperor Leo, and even under the direct supervision of an architect sent from Byzantium. It is a striking evidence of the preponder-

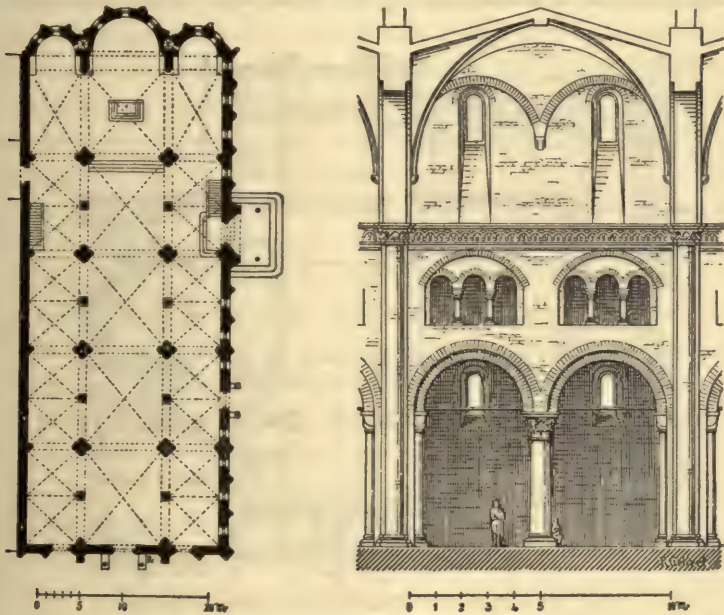


Fig. 190.—Plan and System of the Cathedral of Modena.

ance of the artistic methods of the East that the principal church of Venice, S. Marco,* should be in the Byzantine manner, and even deserves to be considered as one of the most important monuments of that style. The first two constructions, referable to the years between 830 and 864, and between 976 and 1008, were, it is true, basilical. It cannot be determined in how far the Lombardic structures of the neighboring Friuli and of Milan were of influence upon

* G. e L. Kreutz, *La Basilica di S. Marco in Venezia*. 1843 sq.

these edifices, which may have owed quite as many of their peculiar characteristics to the models naturally presented by Ravenna. The addition of the transepts and the introduction of domes in the place of horizontal wooden ceilings are probably referable to the reconstruction made between 1052 and 1071. The effects of these alterations upon the general arrangement are to be seen in the plan (*Fig. 191*), which is taken from Boito's work.

It may be assumed that S. Marco was of decisive influence upon the architecture of Venice during the Romanic epoch, although but

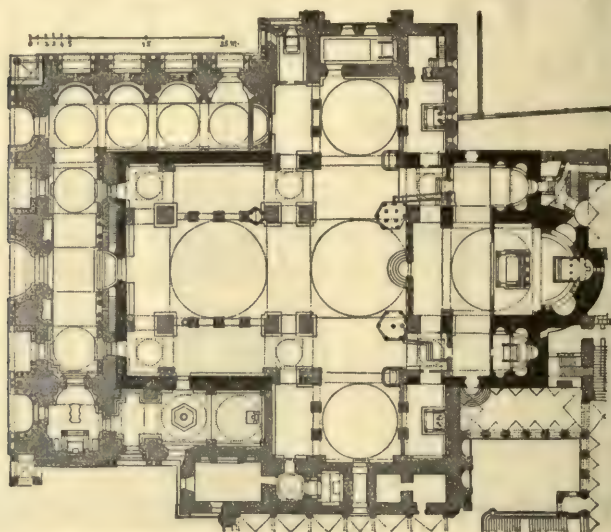


Fig. 191.—Plan of the Church of St. Mark in Venice.

few remains have been preserved of the contemporary churches of S. Leonardo, S. Catterina, S. Aponale, S. Secondo, and S. Croce in Luprio. The cathedrals of Grado, Torcello, and Murano, all of which were rebuilt and extended during the tenth and eleventh centuries, are of basilical arrangement, and exhibit the influences of Ravenna. On the other hand, the cruciform and concentric plan of S. Fosca in Torcello appears, from the date of its erection, rather as a prototype than as a copy of S. Marco.

In striking contrast to the Byzantine traditions of Venice, Central Italy long retained the classic architectural methods in com-

parative purity. The city of Rome, especially, clung to the early Christian types with great persistency, and the construction and restoration of the basilicas referable to the Romanic epoch so closely followed the ancient patterns that antique materials continued to be directly employed in these edifices. The influence of Lombardy, from Spoleto, and of Tuscany, from the valley of the Arno, extended almost to the gates of Rome, while that of the Holy City itself was at this time limited to the Papal States. The low standard of Rome in artistic respects is evident from the celebrity attached to the House of Crescentius, built about the year 1000,—a work which in Milan would have scarcely been considered worthy of mention.

On the other hand, there was in Rome a peculiar school of decoration, of considerable local importance although of foreign origin. This appears to have been developed from the impulse given by the school of art founded in Monte Casino, A.D. 1066, by the abbot Desiderius, who summoned to his convent the most skilful artists of Amalfi and of Lombardy. The objects there produced were chiefly funeral monuments, tabernacles, Easter candlesticks, bishops' thrones, pulpits, chancel screens, balustrades, etc.; but works of a more architectural character were also executed, such as rood-lofts, portals, and cloisters. Antique forms were predominant in the ornamentations, combined with Lombardic and Romanic elements and with Byzantine intarsia and mosaic work: architraves, friezes, archivolts, pilasters, and even the shafts of columns being covered with delicate and effective patterns. A Roman artist by the name of Guido, who flourished in Corneto about the year 1121, founded a school which seems to have continued for three generations. A second family of artists was that of the marmorarius Paulus, whose sons executed after 1147 the tabernacle of S. Lorenzo fuori le Mura, and in the year 1150 that of S. Croce, which latter no longer exists. Nicolaus, a grandson of Paulus, was employed between 1160 and 1170 upon the Easter candlestick of S. Paolo fuori le Mura, and in 1180 upon the lectorium of S. Bartolommeo in Rome, now remaining in a fragmentary condition. The fame of these families was exceeded by that of a third, namely, of Laurentius, who, together with his son Jacobus, executed the Ambo of Araceli in Rome about 1170, as well as the portals of the Cathe-

dral of Civita Castellana and of S. Maria at Falleri. Cosmas, the grandson of Laurentius, was employed about the year 1210 upon the portal of Civita Castellana (*Fig. 192*), and became so celebrated as a designer that the manner of decoration above described was afterwards known as Cosmatic. The climax of this style was reached in the charming cloisters of S. Paolo fuori le Mura, and of the Lateran, the design of which may be in part referred to the architect Vassalittus (*Bassalectus*). Gothic forms begin to appear in the beautiful choir stalls of S. Lorenzo fuori le Mura.



Fig. 192.—Portal of the Cathedral of Civita Castellana.

The architecture of Tuscany was of a far more important character than that of conservative Rome. The style of both was founded upon the classic traditions, but the former, lying between Spoleto and the cities of the Po, had been much affected by Lombardic influences, and not possessing so great a number of antique monuments as still remained in Rome, was naturally thrown more entirely upon its own resources. This independence of design is evident in the few remains of S. Paolo, S. Pietro, S. Maria, and S. Andrea in Pistoja, which have been preserved from the

eighth and ninth centuries. It is known that S. Pietro was built by a Lombardic architect named Winichis, and Lombardic influences are distinctly evident in S. Pier Cigoli, S. Giusto (*Fig. 193*), and S. Anastasia in Lucca, the substructure of these churches, including the portals, being, without doubt, referable to their original construction about the year 750. Traces of the primitive forms are also evident in S. Paolo a Ripa in Pisa, founded under the auspices of Charlemagne, and as the same characteristics are met with in S. Casciano and S. Pietro a Grado in Pisa, it may be assumed that the pilasters of the exterior, connected by arches in

relief, formed part of the first decoration of these edifices, which must consequently have differed, at least externally, from the traditional basilical arrangement. The same system was repeated in the tenth century, as is evident from S. Giulia and S. Micchele in Borgo at Lucca. Although the architecture of Arezzo and Siena seems to have been developed in a manner similar to that of Pisa, Pistoja, and Lucca, there is no question but that the most important place among these cities was taken by the powerful Pisa.*

This artistic pre-eminence is to be assigned to Pisa after the erection, in the beginning of the eleventh century, of the imposing Cathedral with its dependencies. The original plan of this building, which was begun in 1005 or 1006, was of great extent, Pisa having become the most important and wealthy city of the country through her successes in Southern Italy, Corsica, Elba, etc. But it was only after the plundering of Palermo, A. D. 1063, that the means were provided for the extraordinarily rich interior, the magnificence of which had at that time no parallel among the ecclesiastical edifices of Italy. Even these resources were exhausted before the completion of the building. The work was suspended in 1095, and could only be resumed by means of pecuniary aid given to the undertaking by the Byzantine emperor. After the consecration of the Cathedral, in 1103, the interior decorations were carried on until the thirteenth century. Imposing as was the enormous space of the body of the church, with its four two-storied side aisles and its four hundred and fifty columns, the construction nevertheless offers but few important innovations. The cruciform plan (*Fig. 194*) had been frequently adopted in Milan after the early Christian epoch, and even the development of the



Fig. 193.—Portal of S. Giusto in Lucca.

* M. G. Rohault de Fleury, *Les Monuments de Pise*. Paris, 1866.

transepts into three-aisled basilicas had appeared in the Constantine Church of the Apostles in Byzantium. The columns were for the greater part taken from antique buildings, and the alternation of supports in the galleries had been common among the Lombards. The cross-vaults which were introduced into the side aisles were universal at that period in all two-storied structures, as were also the wooden ceilings of the other parts. There is no trace of the vertical tendencies of the Northern style, horizontal memberments being as predominant as in the early Christian basilicas. The most remarkable of the innovations were of doubtful advantage. The continuation of the two-storied aisles across the tran-

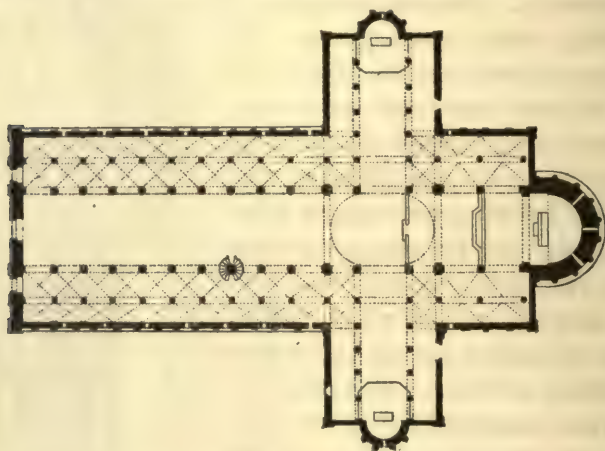


Fig. 194.—Plan of the Cathedral of Pisa.

sept separated the latter from the body of the church, depriving it of all unity; moreover, the dome of oval plan, above the oblong intersection of the transept and nave, was not of good effect, either within or without, and is to be regarded as an addition not contemplated in the original design. Notwithstanding these drawbacks, the charm of the harmonious proportions is undeniable, the dimensions of the details increasing the apparent size of the whole, while the arcades in relief and dwarf galleries of the exterior repeat in organic elaboration the forms of the interior (*Figs. 195 and 196*).

The rotunda of the Baptistery was begun at a somewhat later period, A. D. 1153. The central structure, supported upon columns,

was of the form which had remained customary throughout Italy after the early Christian period, but it was not of so good proportions as the before-mentioned Lombardic buildings, the height of the dome leading to a too great attenuation. The weak circle of Corinthian columns with the stilted arches form a somewhat hazardous support for the high gallery of piers, while the conical dome was of so displeasing a form that a cupola shell was adopted at a later period to improve at least the outline, and at the same time to counteract the excessive thrust.

So insecure a construction as that of the domes of the Baptistery and of the Cathedral was nowhere more out of place than at Pisa. Venice, Ferrara, and Bologna, and other cities of Northern

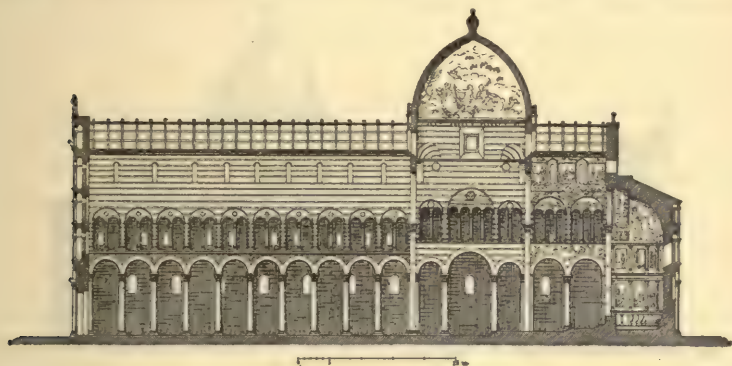


Fig. 195.—Longitudinal Section of the Cathedral of Pisa.

Italy, had experienced great difficulty with unstable foundations, a great number of their buildings settling irregularly. These disadvantages were particularly felt in Pisa, where the swampy soil, exposed to volcanic disturbances, occasioned most serious displacements, requiring many adjustments and anchorings to be made during the course of the construction. After the warnings received during the erection of the Cathedral and Baptistery, in which almost all the lines have deviated from the vertical and horizontal, it was necessary for the architect of the Campanile, begun in 1174, to be particularly careful in this respect. But neither pilings, deep foundations, nor the exceptional thickness of the cylindrical walls of the tower could avoid the disturbances resulting

from the movement of the earth, and in each of the lower stories it was necessary to equalize the horizontal cornices by additions to the height of the southern side, amounting to 3 cm. in the second, 4 cm. in the third, and 7 cm. in the fourth story. At this stage the work upon the building was suspended, A. D. 1186, but the pause of fifty years did not put a stop to the troublesome sinking, for during the erection of the fifth gallery a further settlement of 11 cm. was observed. The inclination of the structure continued to increase, not only during the progress of the work, which was taken up again in 1350, but even after the completion of the tower, and it has resulted, notwithstanding the repeated adjustments, that the upper point of the axis overhangs the centre of the plan by

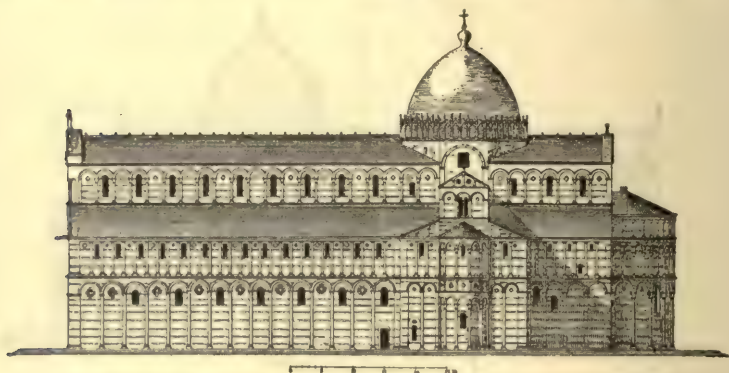


Fig. 196.—View of the Southern Side of the Cathedral of Pisa.

about 4.5 m. The exterior treatment of the cylindrical tower closely resembles that of the façade and apse of the Cathedral, and that of the Baptistry before the introduction of Gothic forms in its decoration. Above the engaged columns and arches in relief of the lower story rise six galleries of columns, surmounted by an eighth story of somewhat smaller diameter in which the engaged columns are repeated. The conical roof, which seems to have been contemplated in the original design, has never been added. The height of the building, now about 55 m., and its many stories, led to an elaborate treatment of the exterior, which is remarkable for the great delicacy of the details peculiar to Pisan architecture. The Campanile stands entirely isolated, and it is some consola-

tion for its infirmity that the inclination is not towards the Cathedral.

The architectural style, which attained its highest development in Pisa, was so closely imitated throughout Tuscany that but slight differences can be observed at this period between the models before described and the buildings of Siena, Lucca, Pistoja, and even of Florence. The parts of the Cathedral of S. Martino at Lucca, which are referable to the original construction between 1050 and 1070, most closely resemble the Cathedral of Pisa. Florence had early developed an architectural activity with a certain degree of independence, but the Church of S. Miniato al Monte, probably built in its present form as early as 1013, exhibits upon the exterior the direct influence of Pisa, while the interior still retains the early Christian forms. The lower portions of the Baptistery of Florence, displaying a certain similarity to the Pantheon, were probably built during the sixth and seventh centuries, under the superintendence of Lombardic designers. The greater part of the construction at present remaining, in which the artistic traditions of Rome were combined with those of Ravenna, dates to the years between 1120 and 1150, while the features of the exterior, referable to the Middle Ages, are treated in a manner similar to that of S. Miniato. The revetment of the walls of brick with slabs of different colored marbles is characteristic of the Florentine buildings of this epoch, the alternation of colors giving an effect like that obtained in Pisa by the ashlar courses of different material.

An important part in the artistic development of this age was taken by Toscanella, which is to be considered in connection with Tuscany, it not having been added to the Papal States until the pontificate of Boniface VIII., in the year 1295. S. Pietro, founded in 628, owes its present form in great measure to a reconstruction made between the years 1039 and 1090. Its similarity to the almost contemporaneous S. Miniato is very striking, although the Lombardic elements, probably introduced from Spoleto, are more noticeable than in Florence. The introduction of many artistic methods of Southern Italy is explicable from the circumstance that Spoleto had been united to Benevento in 967. The reconstruction of S. Pietro was soon followed by that of S. Maria Novella, like the

former a three-aisled and horizontally ceiled basilica, the design of which, clearly displaying the influence of the North, was still farther removed from the traditions of Pisa and Rome.

Southern Italy and Sicily were affected during the Middle Ages by very different civilizations, the combination of which gave to the architecture of these countries a most peculiar stamp. The Occidental art of the early Christians was here maintained but a short time. The provinces of Magna Græcia remained longest tributary to the Eastern Empire, and had thus adopted a Byzantine style similar to that of Ravenna, receiving nevertheless from the neighboring Benevento certain Lombardic influences. It is questionable whether the style of the Arabs at first made itself much felt, as the occupation of the land by the Mohammedans put an entire stop to the architectural activity of the Christians. These elements seem, curiously enough, to have only become apparent after the expulsion of the Saracens by the Normans, the Norman invaders having been readily receptive of the artistic culture of their predecessors. In Apulia the architectural forms continued to be developed upon the Byzantine basis, the closely related Lombardic and Norman elements being easily reconciled; but in Sicily this combination was modified by Moorish traditions, the result being a style of peculiar and most important character.

Roger Guiscard, who had conquered Sicily in 1061, must have been well acquainted with the buildings of his home in the North of France, and have retained a preference for their style. He at once appointed a Norman, Robert of Evroult, as the chief ecclesiastical authority of the island, and seems to have desired to make the new castles and churches similar in appearance to those of his native land. But as we are informed that he brought together architects and masons "from all quarters," it is evident that the methods of design and construction previously known in Sicily and Southern Italy still continued to be employed. Thus a direct introduction of the Norman style was not well possible, and was even less to be contemplated when, after the capitulation of Palermo, A. D. 1072, Roger transformed a number of mosques into churches. The well-known inclinations of his son and successor, Roger II., who favored the Saracens to such a degree that he was himself excommunicated by

the pope, were not without effect upon the architecture of this age. The ruins of the palaces Menani and Favara, upon the west and south-east of Palermo, both begun in 1120, distinctly display the influence of Moorish models.

The earliest ecclesiastical edifices of Sicily retained the Byzantine dome and arrangement of the presbytery, together with a basilical body of the church, ranges of columns, and horizontal ceiling. This was the more natural as the Moors had previously adopted the most important of these features, even employing the fragments of ancient buildings in the same manner as had the early Christians. The pointed shape appears from the first in the arches of arcades, transverse ribs, window-heads, etc., making it plain that this form was not derived from Normandy, but was maintained by the Northern conquerors in accordance with the principles of Moorish design. If indeed it can be proved that pointed arches existed in France before the middle of the eleventh century, they were entirely exceptional, and in the main restricted to barrel-vaults. They are certainly not to be found in the chief buildings of Caen in Normandy, at least in those parts of these structures which are referable to about the year 1066. Where the style peculiar to the Normans is met with in Sicily, as in the portals ornamented with checkers, chevrons, and braided patterns, the round arch is alone employed.

The style, or rather the combination of styles, above described seems to have been determined in its main features at the time of the erection of the Cathedral of Cefalù, A.D. 1131 to 1148. The Capella Palatina, begun in 1132, shows that Arabian influences were predominant in Palermo. Little has remained of the older Cathedral of that city, which, like the Capella Palatina, was built by Roger II. The best preserved representative of the Sicilian architecture of this age is the Church of S. Giovanni degli Eremiti, founded in 1132, a domed structure of Byzantine and Arabian character, with but few Occidental features (*Fig. 197*). S. Maria Dell' Ammiraglio (La Martorana) was entirely Byzantine, only displaying Moorish and Norman elements in the decorations of the exterior.

The Moorish tendencies were even more favored by William I., the builder of the Zisa, and especially by William II., during whose

reign was erected the imposing Cathedral of Palermo, A.D. 1170 to 1185, the original appearance of which, at least in the interior, has unfortunately been entirely changed by the restoration of 1652, and by that carried on from 1781 until 1801. The Cathedral of Monreale (*Figs. 198 and 199*), built between 1173 and 1182, compensates in great measure for this loss. Instead of having been irreparably injured, like the Cathedral of Palermo, this jewel of Sicilian architecture has recovered its original splendor by the skill-

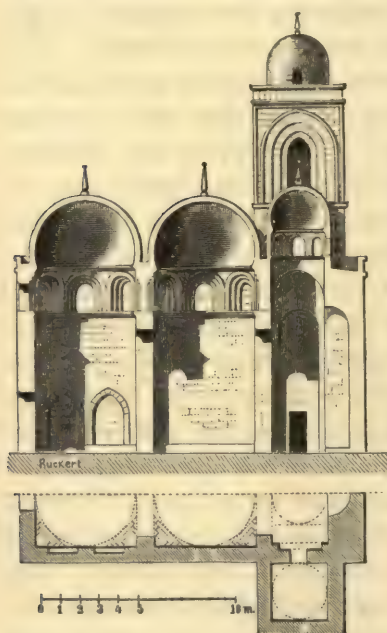


Fig. 197.—Plan and Section of S. Giovanni degli Eremiti in Palermo.

ful restoration made between 1816 and 1859. The forms employed by the various races who had occupied Lower Italy and Sicily after the early Christian period were here combined to a harmonious system which may directly be termed the Sicilian style, this name certainly being more applicable than the common appellation of Norman. The basilical plan in its Lombardic transformation, the Byzantine treatment of the walls, especially those of the choir, the Moorish pointed and surmounted arches intersecting upon the exterior of the choir, and, finally, the Norman towers and general proportions, are indeed to be distinguished, but instead of making the effect of an

unrelated aggregate, as in the Capella Palatina, they are blended to a whole of perfect unity. With an extreme wealth of ornamentation is combined the most careful and loving execution of the details, which are designed with great facility and elegance. The Cloister of Monreale, especially, is one of the most charming creations of mediæval architecture. A preponderance of Norman elements is nowhere evident, and it is entirely misleading to bring this style into connection with that of Normandy and of

England. On the other hand, it is not possible to trace any direct influence of these methods of construction and decoration upon the Gothic, although so consequential an employment of the pointed arch is indeed remarkable at this early period. The Cathedral of Monreale is the best possible illustration of the flourishing condition of Sicily during the reign of William II., who renewed the golden



Fig. 198.—Cathedral of Monreale.
System of Interior of the Nave.

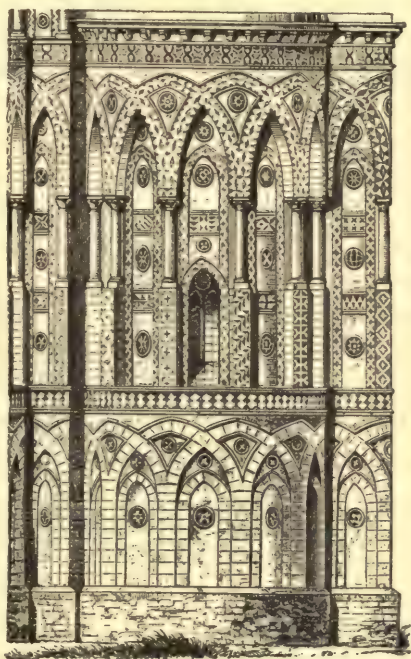


Fig. 199.—Cathedral of Monreale. System
of the Exterior of the Choir.

age which the island had enjoyed in the tenth century under Abul Hakem. The Palace of the Kuba, finished about the year 1182, in which the Moorish elements are even more pronounced, is by no means so well preserved. This glorious age was followed by a rapid decline. The contentions after the death of William II. so entirely destroyed the prosperity of Sicily that even the beneficent rule of the emperor Frederick II. could not lead to its recovery. The

architectural activity of the last Hohenstaufens, moreover, belongs to another phase of artistic development.

In Southern Italy the Normans adopted in equal measure the methods of Byzantine architecture and the Lombardic transformation of the early Christian types. In the eleventh century isolated instances of vaulting are met with, these, without doubt, being referable to the influence of Southern France. In S. Maria Immacolata at Trani the nave is covered by three Byzantine domes, and the side aisles by bisected barrel-vaults; in S. Maria Assunta at Altamura, while the galleries are treated like the aisles of the before-men-



Fig. 200.—S. Maria del Gradillo in Ravello.

tioned church, the nave is barrel-vaulted. It may perhaps be assumed that the pointed barrel-vaults of the side aisles of the Cathedral of Siponto were introduced in place of bisected barrel-vaults. After the end of the eleventh century Norman and Saracenic elements become more common, but still do not predominate, the architecture of Southern Italy not attaining to the individuality and important character of that of Sicily. S. Maria del Gradillo in Ravello (*Fig. 200*) displays the combination of Byzantine, Lombardic, and Sicilian forms, which is also to be observed in Amalfi, Salerno, Gaeta, etc. A pointed-arched system appears both in the arcades and in the transverse ribs of the barrel-vaults of the Church

of the Benedictines, S. Nicolo e Cataldo, at Lecce, as early as 1180. Stilted and pointed arches were adopted in the parts of the Duomo Vecchio at Naples, referable to the beginning of the thirteenth century, and in the Cathedral of Rapolla, begun in 1209. The Gothic style was first adopted under the rulers of the house of Anjou, but the influence of the Sicilian style, and of the various elements of which it was constituted, long continued to be felt.

FRANCE.

The unity of plan and architectural forms observable throughout Germany, notwithstanding great provincial differences, was as little to be found at this period in France as in Italy. The native Celts and Gauls remained predominant only in the west of France, and so many and so different foreign elements were introduced into the other districts that no regular and settled architectural type could there be developed. A marked difference was evident between the art of the southern and that of the northern coasts. In the Provence the influence of the ancient Greeks and Romans had taken firm root and flourished for nearly a thousand years, being but little disturbed by the Visigoths. In Normandy, on the other hand, the native races were continually driven towards the west by invasions from the east and north, and Germanic traditions were combined with those of the Celts, which had been but slightly tinged by the culture of distant Rome. The provinces of the interior, situated between these two extremes, took an intermediate position in artistic respects, those of the east being influenced by the development peculiar to the Rhenish countries, while, on the other hand, those of the south-west profited little by their neighborhood to Spain.

The greatest architectural activity was displayed, at the beginning of the period now in consideration, in Southern France.* Even in the more remote Rhenish countries the presence of Roman remains had led to a retention of the classic forms and constructive methods, and these traditions were much more felt in the countries of the Rhone—the Provence, Dauphiné, and Languedoc—where there are still preserved a greater number of Roman ruins than in

* H. Revoil, *Architecture Romane du Midi de la France*. 3 vols. Paris, 1873.

any part of Italy itself, with the exception of Rome and Pompeii. Thus the rise of ecclesiastical architecture, which was felt throughout Christendom at the beginning of the eleventh century, made itself evident in Southern France rather by an increased number of constructions than by the adoption of new methods of design. Concentric edifices, as well as the peculiar barrel-vaulted churches without side aisles, had been common before this epoch, apparently having been developed, even in the early Christian epoch, from a combination of the basilical plan with the constructive methods pursued in imitation of the Roman ruins of the Provence. The interior of the fine temple of Nîmes might have directly served as a model for the barrel-vaulted churches customary in this district at the beginning of the Romanic epoch. Some of the Roman buildings display a similar memberment of the vault by heavy transverse ribs supported upon pilasters, and are provided upon the exterior with buttresses.

It is not possible to determine the exact chronological order in which the remains of the buildings referable to this period are to be placed. On the whole, it may be assumed that smaller dimensions, simpler proportions and memberment, and a comparatively exact imitation of classic details are indications of greater age, while the introduction of peculiarly Romanic features in place of Corinthian forms is characteristic of the later buildings. It is to be remarked that the appearance of pointed instead of round barrel-vaults cannot be taken as a proof of the age to which these structures are to be ascribed. The earlier type is best represented by the Chapel of St. Thomas at Mollégès (Bouches du Rhône), which, although certainly one of the most ancient of these memorials, has already slightly-pointed barrel-vaults (*Fig. 201*). The building is of extreme solidity and simplicity. The side walls of the single aisle are ornamented with arcades in relief, the vault is provided with transverse arches supported upon pilasters, from which they are separated by a plain impost moulding continued as a cornice. The semicircular apse immediately adjoins the body of the church, which is lighted by three windows. The comparatively low gable and inclined roof are formed by a kind of cement, cast in a solid mass upon the vault. A discharging arch is turned above the lintel, and the corners of the

building are strengthened by four buttresses; otherwise there are no architectural members upon the exterior.

The same arrangement of plan and construction appears in the majority of cases, the local development influencing only subordinate features. Churches of larger dimensions were rarely of the extreme simplicity of the before-mentioned chapel,—St. Quenin at Vaison being exceptional,—and there are still fewer instances of the entire omission of the pilasters and transverse arches,—as in the church of Grandmont (Hérault) and that of Six-Fours (Var), both of which are extremely bald and ugly. Frequently a greater elaboration was attained by increasing the number of the pilasters, as in the Chapel of St. Gabriel near Tarascon (*Fig. 202 a*), the Church of Saintes-Maries (Bouches du Rhône), and the Abbey Church of Montmajour near Arles. By the duplication of these rectangular members a greater play of light and shade was gained; this was heightened in effect in those rare cases where engaged columns took the place of the pilaster, or were connected with it. Instances of this are the Church of St. Peter in Reddes (Hérault), where coupled columns support richly-moulded transverse arches, and that of St. Martin at Londres, in which the classic traditions are less evident, its trapeze-shaped capitals and its pilaster strips and corbel-tables pointing to the influence of the East, especially that of Northern Italy (*Fig. 202 c*). The imitation of foreign models occasionally led to the introduction of cross-vaults, corresponding to the pilasters, in place of the single barrel-vaults, as in the Church of Le Thor (Vaucluse).

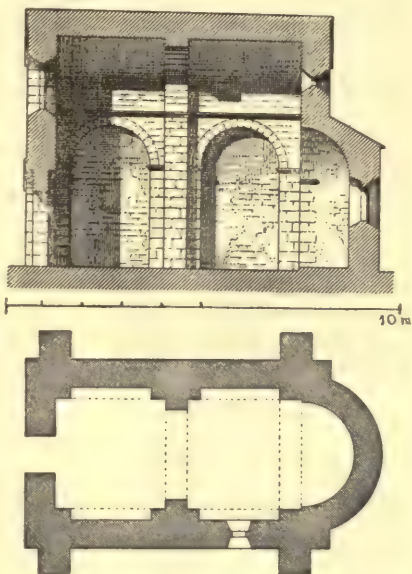


Fig. 201.—Plan and Section of the Chapel of St. Thomas at Mollégès.

The most elaborate treatment was devoted to the apse. The ornamentation upon the exterior is usually formed by Corinthian pilasters with horizontal entablatures; that upon the interior by engaged columns and blind arches, the conch being divided by radial ribs. The origin of this system is without doubt older than the period now under consideration, it having been introduced into

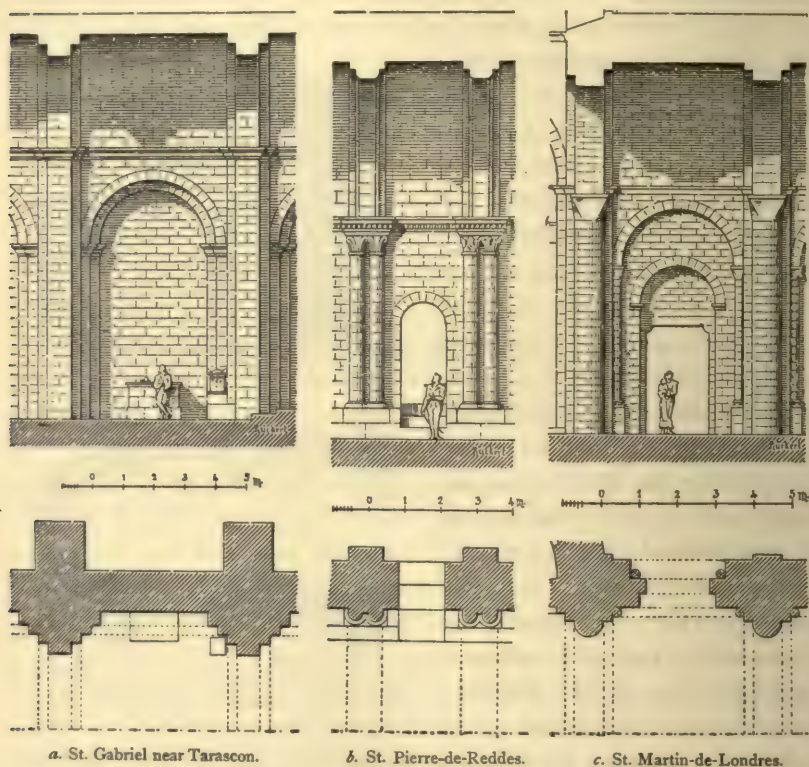


Fig. 202.—System of the Side Walls of the Interior.

the apse of the Church of St. John at Moustier (Arles), which is probably referable to the Carolingian epoch (*Fig. 203*). The details of this building are so classic that it might be ascribed to early Christian ages were it not for the insufficient entablature of the exterior pilasters. The interior of the apse of St. Quenin in Vaison and that of Saintes Maries (Bouches du Rhône) are of somewhat

taller proportions; in other churches, such as that of St. Ruf near Avignon, and that of Cavaillon (Vaucluse), the arcades of the apse are provided with window-like apertures. Still others display more peculiarly Romanic forms: a kind of corbel-table being employed in the Church of St. Peter at Maguelonne (Hérault), while the details of the church at Le Thor are characteristic of a later period. The architectural members are usually imitated from Corinthian forms, these appearing not only in the columns and pilasters, but in the cornices composed of egg and dart mouldings, of modillions, and of Lesbian cymas carved with foliage.

The same retention of classic traditions characterizes the portal,

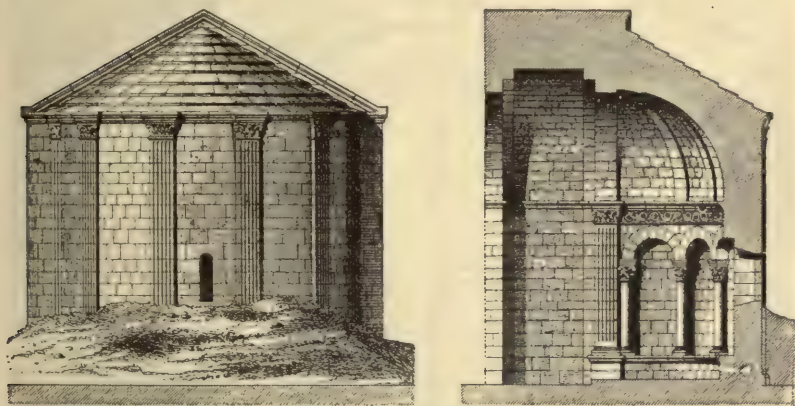


Fig. 203.—Exterior View and Section of the Apse of St. Jean-de-Moustier.

upon which was concentrated all the decoration of the façade. An imitation of the Roman *ædicula* long continued in vogue, the entablature above the engaged columns being abbreviated and the pitch of the gable greatly increased. Round arches were introduced above the gable or beneath the entablature, as, for instance, in the Church of St. Gabriel near Tarascon, in Notre-Dame-des-Doms at Avignon, and the Church of Le Thor; occasionally the engaged columns are themselves connected by arches. These uncertain attempts of the earliest period gradually resulted in the development of the magnificent types of the twelfth century, such as the portal of the Church of St. Gilles (Gard), begun in 1116, or

that of St. Trophime in Arles (*Fig. 204*), which is perhaps referable to the year 1154. But even here the proportions and forms of the Corinthian columns were retained in some degree, and the classic horizontality of the entablature was emphasized in the impost of the arch. In like manner the decorative carvings, both of the figures and of the ornaments, were still influenced by Roman traditions.



Fig. 204.—Portal of St. Trophime at Arles.

Although in the first period of the Romanic style the basilical plan had been more and more supplanted by that of the one-aisled and barrel-vaulted churches, it was never entirely relinquished. In many cases the requirements of an extended space rendered the retention of a three-aisled plan necessary. Such structures seem to have been vaulted from the first, the advantages of this construc-

tion having become too plain to allow the introduction of horizontal ceilings of wood. The barrel-vaults of the side aisles led to various attempts to meet the exigencies of the construction, the ultimate success of which resulted in the greatest development of the style.

The first step was to cover the low side aisles with comparatively small barrel-vaults, the slightly inclined lean-to roof leaving sufficient space for the introduction of the clerestory windows above

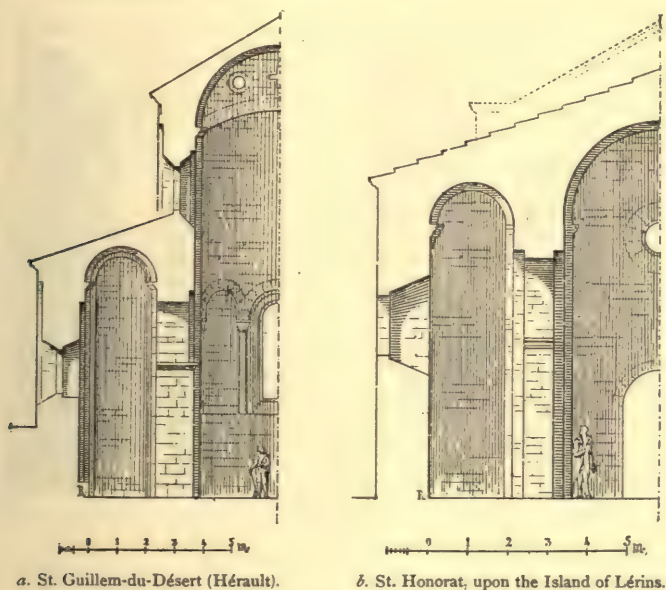


Fig. 205.—Sections of Three-aisled Barrel-vaulted Churches.

them. This appears in the Church of Guillem-du-Désert (Hérault), which, however, seems to belong to a comparatively recent period, if we may judge by the absence of classic details, and the prevalence of specifically Romanic features in the portal, capitals, diagonal dentils, arched corbel-tables, etc.,—the dwarf gallery of the main apse even pointing to the influences of Northern Italy (*Fig. 205 a*). A more particularly national character is evident in the remains of St. Honorat upon the Island of Lérins (Var). Unfortunately it is not possible to determine whether both divisions of the church, the

one with round arches, the other with pointed vaults, are to be ascribed to the eleventh century. In this structure the basilical clerestory is given up, the three aisles being covered by one roof. In the round-arched part of the building (*Fig. 205 b*) the narrow side aisles are covered with full barrel-vaults, while in the pointed-arched division bisected barrel-vaults appear in this position (*Fig. 206 a*). It is not known at what time this important deviation from the traditional arrangement of the vaults was first made, but there appears

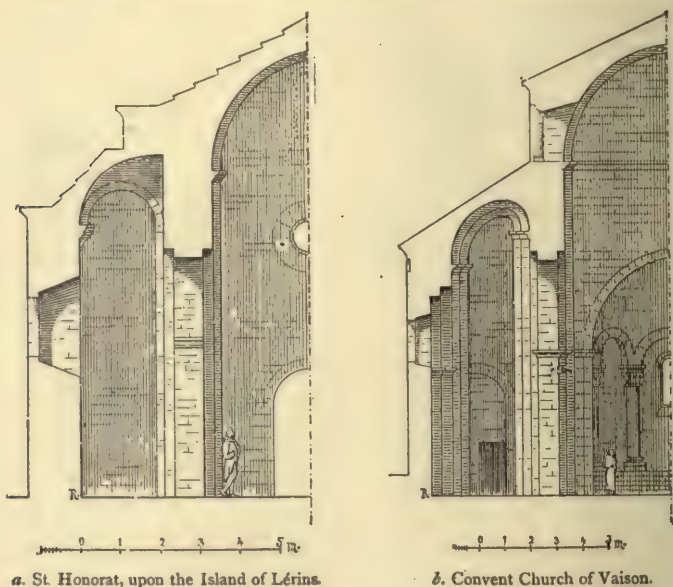


Fig. 206.—Sections of Three-aisled Barrel-vaulted Churches.

to have existed between the varieties exhibited by the western and eastern portions of St. Honorat a third system, exemplified in the Abbey Church of Silvacanne (Bouches du Rhône), in which the side aisles were also covered with pointed barrel-vaults, but in such a manner that the inner arc was considerably shorter than that rising from the exterior wall. The tentative methods of this last phase of development are even more strikingly displayed in the Convent Church of Vaison (Vaucluse), where the two-third barrel-vaults of the side aisles are of an irregularly curved outline, and are

placed at such a height that the clerestory windows are cut directly through the vault above the nave (*Fig. 206 b*).

The lack of architectural memberment in these buildings contrasts most unfavorably with the regularity of the vaulted structures of Germany. Their heavy and gloomy character is not sufficiently accounted for by the climate of Southern France, although the bright light and heat of the south made the coolness of spaces enclosed by massive walls and vaults, and lighted by few and small windows, appear desirable. These considerations would not, however, have interfered with a more organic disposition of the plan than was customary,—the effect of both the interior and exterior being but rarely successful. A kind of transept was commonly adopted, even in the one-aisled plan, by the addition of two side chapels next to the main apse, but this was not brought into harmonious relation either with the side aisles or with the choir. The artistic inadequacy of such an arrangement is evident in the plan of St. Guillem-du-Désert (Hérault), in which the designer seems to have hesitated between a transept and lateral chapels, and was unable to effect an organic combination of the choir with the body of the church (*Fig. 207*). The transept is more clearly defined in the Abbey Church of Thoronet (Var), and in that of Silvacanne (Bouches du Rhône), in the eastern wall of which two altar niches are introduced, these, however, not appearing upon the exterior. In the latter church the semicircle of the main apse is replaced by a straight-lined termination of the choir. A more organic arrangement of the presbytery is attained in Vaison (*Fig. 208*) by giving up the transept altogether, and by terminating the side aisles with lateral apses; and in the Church of Gilles (Gard), which is similar in style to the buildings of Auvergne and Burgundy, by continuing the aisles around the main apse in the shape of a surrounding passage with a number of radial chapels. The disproportion of the too narrow and too high side aisles remained, and in those cases where bisected barrel-vaults were introduced, this was rendered even worse by the shapelessness of the ceilings. Still, it is not to be denied that the principles of important innovations are recognizable in these structures: the bisected barrel-vaults alternately leading to the development of the flying buttresses of the Gothic style, and of the pointed barrel-vault

above the nave, which had perhaps derived its form from the one-sided ceilings of the aisles, offering some similarity to the multifold groined and pointed vaults of the later period.

In several cases a close approach had been made to a regular system of buttresses. Even in the construction of the apse the principle was employed: a conch, inclined against the impost of a dome, counteracting the thrust in precisely the same manner as does a flying buttress. The cupolas of many French churches were thus surrounded by the vaulted ceilings of the apses, the dome not

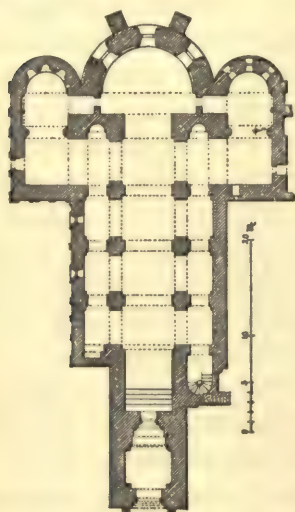


Fig. 207.—Plan of St. Guillem-du-Désert.

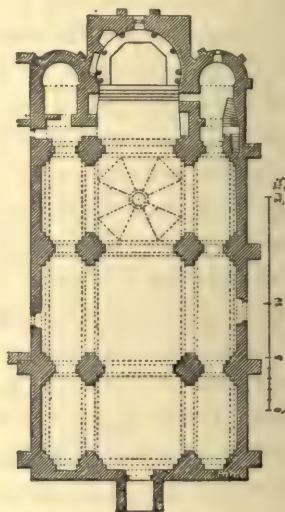


Fig. 208.—Plan of the Convent Church of Vaison.

only adjoining the main apse, as in Notre-Dame-des-Doms in Avignon, and the Church of Cavaillon (Vaucluse), but appearing above a concentric plan similar to that customary in Byzantium. A number of churches resembling the Chapel of Montmajour near Arles display a central dome above a square plan, with apses upon three or four sides. At times this construction was combined with the arrangement of the nave above described, as for instance in the Chapel of the Holy Trinity upon the island of Lérins, or in St. Martin at Londres.

This was an attempt to solve by a new method the constructive

difficulties which had been met in the octagon of the Minster of Aix-la-Chapelle by inclining the imposts of the barrel-vaults which upon a lower level surround the dome: the principle of the buttress being there distinctly pronounced, although the difficulties of the thrust were not overcome in an organic manner. A greater resemblance to the later system of flying buttresses is observable in the concentric Church of Rieux-Merinville (Aude), the fourteen-sided surrounding passage of which is covered by bisected cloister-vaults, leaning against the seven-sided central dome. Nevertheless, this building is but of secondary importance in the history of the development of the flying buttress, as its construction cannot with certainty be referred to the eleventh century. Indeed, the evidences of a regular evolution in this respect are not precisely to be determined, and it is even possible that the bisected barrel-vaults of the side aisles may have resulted from constructive considerations not at all relating to the support of the dome.

The towers of the churches of Southern France were but of subordinate importance. The bells were placed in a single campanile, which stood either on the western front of the nave, as at Notre-Dame in Avignon, or above the dome before the apse, as in St. Trophime in Arles, or even, when small dimensions rendered this possible, upon the barrel-vault of the nave, as at Silvacanne and Beaucaire. The tower is added to one side of the church in Notre-Dame d'Aubune near Carpentras, and rises above one of the apses in Notre-Dame at Vaison. It is generally of square plan and divided in stories; at times, however, the rectangular substructure is transformed into a cylinder at the height of the gable of the façade, as is the case with the finest of all the Romanic towers of Southern France, that of St. Théodorit in Uzès (Gard), in which six stories, richly decorated with engaged columns, rise above the square basis. The design of the campanile in the cemetery of Puissefontaine evidently owes its peculiarities to foreign influences, either Italian or German, as do also the pilaster strips and the arched corbel-table of the tower of St. Trophime at Arles, the upper story of which, with its classic details, is referable to the eighteenth century. Octagonal forms appear occasionally upon the towers built above the domes, as in the Church of Bourg-Saint-Andéol (Ardèche), and in Notre-

Dame-des-Alicamps near Arles, which remarkable edifice, with its sixteen open arcades ornamented with engaged columns, is surmounted by a dome.

Many of the cloisters adjoined to the churches of the South of France attained a higher degree of development in this period. There are numerous examples of cloisters supported upon piers, as at St. Michel in Fricolet; or upon small coupled columns which together equal the thickness of the wall, as in St. Sauveur in Aix; or an alternation of columns and piers. In the Cloister of St. Trophime in Arles the piers are ornamented upon the side towards the court with fluted pilasters, and are not connected by discharging arches, as was usual in most cases, the groups consisting of two

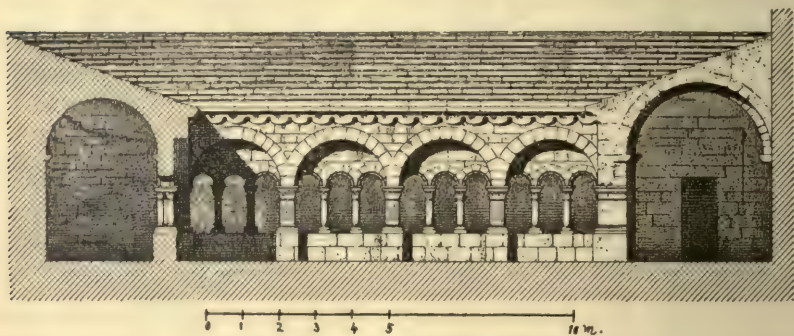


Fig. 209.—Cloister of the Convent of Vaison.

apertures, as at Thoronet and Grandmont, or three, as at Vaison (Fig. 209), at St. Paul in Remy, and S  nanqu  , or of four, as at Montmajour. Apart from the reminiscences of the classic architecture formerly prevalent in Southern France, it is evident from the details that the artistic relations were more intimate with Lombardy and Liguria than with Germany, this naturally resulting from the geographical position of the countries of the Lower Rh  ne. It is thus impossible to determine whether certain forms were first employed in the Provence or in Northern Italy.

The architectural features hitherto described were not restricted to the provinces of the Rh  ne, but were employed without noteworthy deviations, although less exclusively, throughout the districts bor-

dering the coast, as far as the Pyrenees. A greater independence is observable in Auvergne. Bishop Namatius, A. D. 446 to 462, had founded at Clermont-Ferrand (Arverni) a large church with a cruciform termination, which was extolled by Gregory of Tours. Upon the foundations of this edifice Bishop Sigonius erected another church in the second half of the ninth century; but of these earlier structures there are no considerable remains, for the Church of Notre-Dame-du-Port cannot, in its present form, be ascribed to a date more remote than the middle of the eleventh century. It is

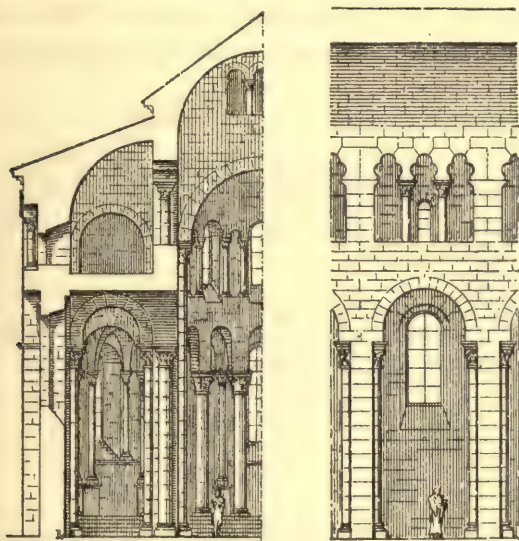


Fig. 210.—Section and System of Notre-Dame-du-Port in Clermont.

of a basilical plan, the clerestory wall supported upon piers, the nave terminated by a continuous barrel-vault, and the side aisles by a bisected form, which counteracts the thrust of the main vault. The aisles have two stories, the lower being covered with cross-vaults, while the upper, lighted by small windows in the side walls of the building, is opened to the nave as a gallery, with three apertures above each arcade (*Figs. 210 and 211*).

The building was decidedly in advance of the Provençal models, the independence being particularly evident in the cruciform plan;

which had not appeared in the districts of the Rhône during the earlier period, there having previously been no continuation of the nave beyond the transept. The ingenious methods by which the constructive difficulties were met had no parallel among all the churches of Southern France. The dome above the intersection of the transept and nave was supported, as was the ceiling of the nave, by bisected barrel-vaults, these being of the same width as those of the side aisles, but constructed upon a much higher level, so as to abut against the impost of the dome. The ends of the transept were covered with barrel-vaults, the axis of which was naturally at right angles to that of the body of the church. The pyramidal composition thus attained culminated in the dome, in the same manner

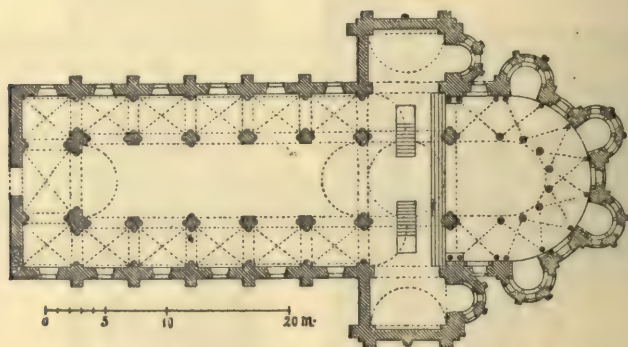


Fig. 211.—Plan of Notre-Dame in Clermont.

as did the vaults of the galleries in the great arch above the nave. This arrangement was eminently organic and successful: the outer and lower parts supporting the higher ones within.

The nave and transept were insufficiently membered by cornices and imposts; the barrel-vaults were without ribs, and the windows were small: all this gave to the interior a bald and gloomy character, similar to that of the churches of Southern France. On the other hand, the choir became more varied and elegant by the continuation of the side aisles as a passage around the apse, the conch of which was supported upon columns. The design of pilasters and arcades in relief, on the exterior of the apses of Southern France, was thus reproduced in a semicircle of real columns, open

between the apse and the surrounding passage. Four smaller niches were added to the curve of the exterior wall, their radial axes pointing to the main altar in the central apse. This was of excellent effect, upon the exterior as well as in the interior, the eye being led from the four outer niches to the somewhat higher passage, from this to the main apse, and finally to the dome. It is not known whether these improvements were here employed for the first time, but it is certain that for centuries they were of decisive influence upon ecclesiastical architecture.

This important constructive advance was combined with an almost purely classic decoration of great richness, at least upon the exterior, consisting chiefly of Corinthian columns and engaged shafts, of horizontal entablatures, console cornices, etc. The revetments of the walls with mosaics and slabs of colored marble were similar to those of the early Christian, or of the Carolingian epoch. The cubecapital and arched corbel-table, which had been employed even in Southern France, were here entirely lacking, and the Romanic formation of the portal was not attempted. This classic influence extended even to a slight inclination of the roof-surfaces, which was much less adapted to this rough and mountainous province than it had been to the Provence. Everything leads to the supposition that many of the peculiarities of the style of Auvergne were referable to the architecture of this district during an earlier period,—very possibly to the church built by the bishop Sigonius in the ninth century.

It is evident from the frequent occurrence of a similar plan in the mountain districts of the Puy de Dôme, Mont d'Or, Cézot, Cantal, and the surrounding country, that the Church of Clermont was not an isolated instance, but should be considered as typical of the architectural style of Auvergne. At Issoire and Orcival the design is almost identical; simplifications of the form appear at Volvic, Bourg-Lastie, and St. Nectaire. At Conques, south of the Aubrac Mountains which form the boundary of Auvergne, a further development is met with: the galleries being carried around the entire church, including the transept. The most southern example of the style is the Church of St. Sernin at Toulouse, also built during the eleventh century,—a five-aisled structure with five niches adjoined

to the passage surrounding the choir and with four chapels in the transept. The most northern is the Church of St. Étienne at Nevers, referable, probably, to the middle of the eleventh century, and even ascribed by Viollet-le-Duc to an earlier age than the Church of Clermont.

In Burgundy there are no indications of a definitely pronounced type, such as that which can be traced in the Provence and the adjoining countries from the first beginnings of its development. The Burgundian buildings of this epoch give evidence of uncertain attempts to combine the most various architectural motives. The influence of Southern France, the classic traditions derived from ancient ruins, the innovations of Normandy, and perhaps, also, the introduction of the architectural forms of Germany, were so equally represented as to make it impossible to recognize any peculiarly Burgundian style.

In the southern parts of Burgundy the Provençal style, derived from Lyons, prevailed; in the western districts of Bourbonnais and Nivernais the plan of Auvergne was imitated: in both the ceilings of the churches were usually barrel-vaults. As before said, it is possible that St. Étienne in Nevers was built even before the Church of Clermont. The apse is so commonly surrounded by a passage with radial chapels, that some authorities have even been led to assume this important feature to have originated in Burgundy. The number of Roman ruins existing in the country was too great for the classic designs to be entirely relinquished, the forms of the ancient edifices appearing particularly in buildings erected in their immediate vicinity during the Middle Ages. Thus the gallery of the Cathedral of Autun, begun in 1132, repeats the characteristic features of the antique Porte D'Arroux. The decorative details of the classic monuments were, however, more generally replaced by a rude and independent ornamentation than had been the case in Southern France. the fantastic carvings of the capitals and arches resembling the Romanic forms of Northern lands. Novel constructive methods were occasionally introduced in the architecture of Burgundy, as, for instance, in the Church of St. Philibert at Tournus, probably built between 1007 and 1019, where heavy cylin-

drical shafts without capitals support not only the arcades but surmounted transverse arches, upon which rest barrel-vaults with their axes at right angles to the body of the church.

Important structures early appear in the north of Burgundy. Dijon was the centre of a notable architectural activity at the beginning of the eleventh century. The Church of St. Benigne, founded at this period by the abbot William, is renowned as having been the most wonderful edifice in Gaul and beautiful beyond compare. A rotunda of columns which adjoined the choir was preserved as late as the beginning of the present century. This concentric addition, and the cruciform plan of the basilica, with two-storied side aisles, point to the influence of Lombardy, and this assumption is strengthened by the mention of the fact that the necessary columns were brought from Italy. The abbot William, a son of Robert of Volpiano, near Ivrea, had himself come to Dijon from Italy, together with St. Majolus, the Abbot of Cluny.

In the second half of the eleventh century Cluny became the most important among all the monasteries of Occidental Christendom. It was inhabited by no less than three thousand monks. In contrast to the larger Carolingian convents, which comprised several churches and chapels, it concentrated its architectural energy upon one enormous church, which, having been begun in 1089, required all the efforts of the community for forty years. The French Revolution has swept away this celebrated work, but from the plans and descriptions still preserved it is evident that the five-aisled body of the church was provided with two transepts, and terminated by a semicircular apse, the conch of which was supported upon columns, and by a surrounding passage with five radial chapels (*Fig. 212*). Eight more apses were added upon the eastern sides of the two transepts, the smaller of which, adjoining the choir, was terminated at both ends by semicircular chapels. The nave and the outer divisions of the transepts were barrel-vaulted, while the two inner side aisles were covered below with cross-vaults as in Clermont, and above, probably, with bisected barrel-vaults. A three-aisled portico added 44 m. to the length of the church, making a total of 167 m. Above the roofs of different height rose seven towers,—one over the intersection of the nave and main transept,

two before the portico, as many before the front wall of the body of the church, and two smaller towers on the corners of the main transept.

The celebrity of the Church of Cluny was in great measure due to the pre-eminence of the monastery; a smaller structure in Burgundy is of far greater importance to the history of architecture. This was the Abbey Church of Vezelay near Avallon, built in the first years of the twelfth century. In it the barrel-vaults were replaced by cross-vaults, and these were constructed upon an entirely new principle, at a time when the antique form of the cross-vault was still exclusively employed in Germany. In the architecture of the Romans the intersecting vaults were invariably semi-cylindrical,

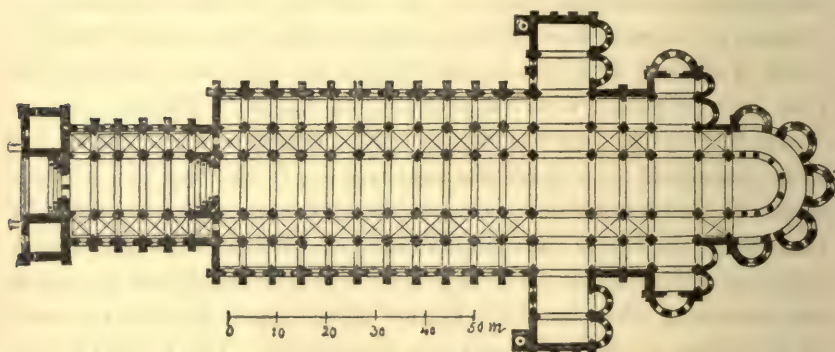


Fig. 212.—Plan of the Abbey Church of Cluny.

and consequently could only be erected above a square plan, and with crowns of equal height. The diagonal groins thus became of an elliptical outline, not being determined in the design, but resulting from the intersection of the two barrel-vaults, and consequently from the character of their curves. The architect of Vezelay, however, treated the groin not as a result but as a constructive starting-point, turning exactly semicircular arches in the diagonals and continuing them in the four surfaces of the vault (*Fig. 213*). The restriction of cross-vaults to square compartments was thus overcome, and the first step was made towards the Gothic system of ribbed vaulting. A further development appears but few decades later in the portico of Vezelay, begun in 1132, pointed arcades and trans-

verse arches being introduced in the place of round forms, while the vaults were constructed according to the principles already set forth. It is a mistake to consider this introduction of the pointed instead of the round arch as an innovation, the form having long been employed in the pointed barrel-vaults of Southern France. Neither pointed arcades nor pointed transverse arches were of great constructive importance after the introduction of the new system of cross-vaulting. The vault of pointed outline, on the other hand, had the advantage of decreasing the thrust in some measure, and was hence early employed in Burgundy, as at Autun, Beaune, Sanlieu, etc.

The civilization of Western Switzerland* was closely related to that of Burgundy. After the year 888 this country had even formed the chief part of the kingdom of Upper Burgundy, which in the beginning of the tenth century extended to the borders of the Provence. These relations were not interrupted when, early in the eleventh century, Western Switzerland was detached from Burgundy and united to Germany by the emperor Henry II. In ecclesiastical respects Switzerland was entirely dependent upon France, the Bishopric of Lausanne belonging to the Archiepiscopal See of Lyon, later of Besançon.

Romainmotier, in the Canton of Vaud, after 919 in the possession of Cluny, exhibits in its church the influence both of the Provence and of Burgundy, with the rudest possible details. The enormous columns, entirely without ornamentation, and the three-aisled, two-storied portico resemble the Church of St. Philibert in

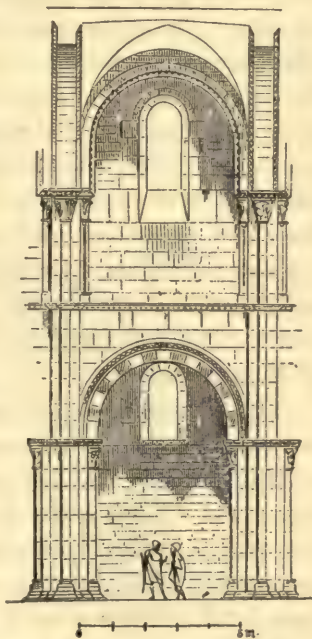


Fig. 213.—System of Vezelay.

* R. Rahn, *Geschichte der bildenden Künste in der Schweiz*. Zürich, 1876.

Tournus. This similarity is probably explicable by the contemporaneous erection of the two buildings, it being almost certain that the older parts of Romainmotier were constructed by the abbot Odilo of Cluny, A. D. 994 to 1049. The Church of Payerne (Peterlingen), near Avanches, after 962 also a dependency of Cluny, displays, on the other hand, a barrel-vault and transverse arches supported above the nave upon piers, which are provided in the main axis of the plan with engaged columns, serving as the impost of the arcades. Above the side aisles, which are covered with cross-vaults, clerestory windows are cut through the barrel-vault of the nave. In determining the degree of resemblance between the style of these buildings and that of Cluny, we must not compare them with the Abbey Church of the latter town, destroyed during the revolution (*Fig. 212*), this not having been erected until after the death of the abbot Odilo, but rather with St. Benigne in Dijon, the work of the abbot William, to which the older portions of Cluny were, without doubt, closely related. In fact, the architectural details of the recently exposed crypt of St. Benigne are strikingly similar to those of Romainmotier.

The architecture of Domdidier, Bevaix, Rueggisberg, St. Sulpice, and other places of Western Switzerland, was dependent upon that of Romainmotier and Payerne,—and consequently upon that of Dijon and Cluny. The remains referable to the earlier period of the Romanic style are extremely rude and inartistic. The most remarkable example of the influence of the French style in Switzerland is the Church of St. John in Grandson (*Fig. 214*). Its basilical plan, with ten columns separating the aisles from the nave, does not appear to have been derived from the Provence, but rather from the German and Alemannic structures of the Lower Rhine and St. Gall. The barrel-vaults and the bisected forms are clearly Provençal, and the formation of the choir, in so far as later reconstructions allow this to be perceived, shows no similarity to that of Burgundy. Although probably not built before the twelfth century, this remarkable structure proves that, notwithstanding the previous political connection of this country with Burgundy, and its hierarchical subordination to the Burgundian archbishopric and chief convent, the influence of Southern France, derived from Vienne and Lyon,

was of decisive effect. The features attributable to the German influences display none of the perfection of the Rhenish details, and, similarly, the buildings of Switzerland erected in imitation of the French styles show no trace of the constructive ingenuity of the Burgundian churches, nor of the fine perception of form which characterizes Provençal architecture.

The architecture of Western France, from the Pyrenees to the Loire, was also influenced by that of the countries bordering the



Fig. 214.—Section showing the Interior of the Church of St. John in Grandson.

Mediterranean. Barrel-vaults, with or without transverse ribs, piers ornamented with Corinthian engaged columns, and a simple plan of the apse, were customary. As had been the case in the southern and south-eastern districts, the pointed barrel-vaults were early adopted in place of those of round form, this change being effected about the beginning of the twelfth century, as is evident from the remains of the Convent of Moissac on the Tarn, near Montauban. The ornamentation was also developed from classic forms, but, in contrast to the South, grotesque figures and the masks of animals and human beings were frequently introduced.

North of the Garonne, in a limited tract in the neighborhood of Périgueux, we meet with a development entirely exceptional in the architectural history of France during this period, namely that of the domical system of construction. This does not appear to have resulted from any discontent with the barrel-vaulted compartments which were so universal in Southern France, and which in the Eastern provinces, especially in Vézelay, had led to the development of peculiar forms of cross-vaulting. We have rather to deal with the introduction of a foreign model, the influence of which was restricted to a small district. The Abbey Church of St. Front in Périgueux (*Fig. 215*), built in the beginning of the twelfth century, was so directly copied from S. Marco in Venice that even the differences in their dimensions are explicable by the inequality of the French and Italian linear measures. The cruciform plan, with the transept of the same length as the nave, is divided into five equal compartments covered with hemispherical domes. The massive corner piers of the main intersection are perforated by arched passages, somewhat narrower than those of the Venetian model; they support broad transverse arches which, in contrast to those of S. Marco, are of a low pointed form. Even these alterations are sufficient to give an entirely different character to the edifice, and the dissimilarity was increased by the omission of the cupola windows, the consequent multiplication and enlargement of those of the side walls, and especially by the want of the fine columns and decorations of carvings and mosaics to which the effect of the Venetian church is so greatly due. The enormous pile of Périgueux thus shared the gloomy and heavy character of the buildings of Southern France, being entirely without the luxuriant magnificence of the Byzantine decorations. On the other hand, an imposing tower was placed above the western entrance, rising in many stories of engaged columns, and presenting an imposing contrast to the low outlines of the cupolas.

This domical style was introduced in the Cathedral of Cahors, the Church of St. Emilion in Bordeaux, and the Cloister of Fontévrauld in Anjou: these places marking the farthest extent of the domical style towards the south, the west, and the north. In none of these churches, however, do the cupolas appear in connection with

a cruciform plan,—being usually placed in a row above a simple nave without side aisles. The bald and heavy piers were connected with pointed transverse arches, as in the Church of St. Front. The choir is in most cases covered with barrel-vaults and conches, and the apse surrounded by radial chapels. In the Convent Church

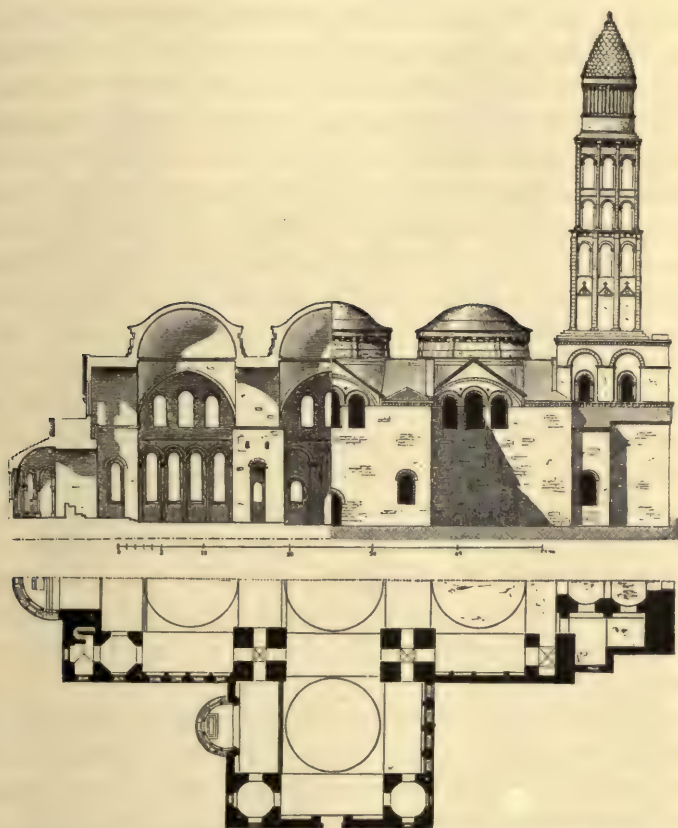


Fig. 215.—Plan, Longitudinal Section, and View of St. Front in Périgueux.

of Fontévrault a concentric passage with columns was adopted, in imitation of the structures of Burgundy and Auvergne.

The greater elaboration of the last-named church seems to have been due to the influence of the Cathedral of Angoulême, in which engaged columns were added to the piers, and the arcades and cor-

nices were richly ornamented. The magnificent façade of this edifice leads us to class it with the churches of Poitou, in which a most successful artistic treatment of the outer walls, and especially the front, was combined with an undeveloped and insignificant plan. Chief among these is Notre-Dame la Grande in Poitiers, the façade of which is divided into several stories by arcades in relief,—the rich decorations of the Romanic portal thus being extended to the wall surface. The figural sculptures will be described in a subsequent chapter. The luxurious ornamentation is as far removed from the classic details of Southern France as from the linear decorations of the Normans. The intertwined foliage and the distorted figures of animals rather appear as the last development of the fantastic Celtic patterns, which so greatly tended to an overloaded and restless composition. The architectural lines are still predominant in the façade of Notre-Dame in Poitiers, the images of Christ, the Apostles, and other saints being placed in parallel niches. In the façade of Angoulême (*Fig. 216*), on the other hand, the memberment merely serves as a fantastic and inorganic framework for a representation of the Last Judgment, the scene of which is divided into entirely disconnected groups. The whimsical and extravagant character which the art of the North had derived from Celtic sources is particularly evident in representations of animals. The decorative sculptures of the Church of Ruffec are a striking instance of this fantastic style. Façades of similar magnificence appear in Ste. Radegonde at Poitiers, at Civray, Lusignan, and elsewhere.

The cupolas which were common north of the Garonne were developed in the valley of the Loire to a peculiar form. In Fontévrauld the dome was not supported upon pendentives, separated from it by a cornice, according to the Byzantine method, but rested on the transverse arches intersecting with the hemispherical vault without an intervening cornice. It is difficult to say what influence may have been exercised upon this development by Lombardic models, and by the concentric edifices which had long been common in this region. In some cases the cupola was divided by ribs, which were placed not only in the diagonal but in the axes of the plan, the dome thus approaching in appearance to a Gothic

vault with stellar groins. This method was probably derived from the similar transformation of the cross-vaults begun in the twelfth century. It led to the treatment of the surfaces between the ribs as separate compartments, like those between the diagonals of the



Fig. 216.—Façade of the Cathedral of Angoulême.

cross-vaults at Vezelay. These systems did not, however, attain to a higher degree of perfection, for the Gothic style, which in the mean time had made its appearance, absorbed the attention and the constructive ingenuity of the builders.

While, in the South of France, classical traditions had continued with but few changes, although with certain local variations, in the East influences of the Rhenish countries had made themselves felt, and in the West Celtic reminiscences had given a peculiar stamp to the architectural style, the North of France was chiefly affected by Northern Germanic elements. Even in the Merovingian epoch the classic methods of building had fallen so entirely into disuse that the models for the chief convents built under the Carolingians had to be brought from abroad. The last traces of Roman architecture were swept away by the Normans, who, after many incursions, at last established themselves so firmly in Northern France that their leader, Rollo, in the year 912, received, together with the hand of the daughter of Charles the Simple, the fief of Normandy.*

The Normans did not at first exercise an important influence upon the civilization of France. Like the Goths, to whom they were related, they were an adventurous and warlike race, continually engaged with freebooting expeditions, and consequently without a settled art of their own. They introduced once more into France the energetic spirit of the North, at a time when the Germanic peculiarities had been in great measure lost through the intercourse with Romanic races and the adoption of the Christian faith. They sounded a high and vigorous note, which was well in accord with the battle-cry and the rattle of arms, but which seemed to be too shrill and unharmonious for the cloistered refinement of French civilization. It required a century of Christian culture for these invaders to arrive at even that degree of perfection in the arts to which North-western Europe had attained under Charlemagne. They brought with them the patterns of straight lines which they had employed in the earliest ages in the ornamentation of their huts and vessels, as well as methods of metal-working used in the manufacture of their arms and utensils; but it required a considerable time for them to advance beyond their native timbered construc-

* J. Britton and A. Pugin, *Specimens of the Architecture of Normandy*. New edition. London, 1874.—V. Ruprich Robert, *L'Architecture Normande aux XI. et XII. Siècles en Normandie et en Angleterre*. Paris, 1884. (Incomplete.)

tions, so as to introduce these elements into monumental architecture,—notwithstanding the fact that the development of their decorative style was more rapid than had been the case with the inorganic braided work of the Celts.

The great endeavors of the first rulers of the new duchy to make their province equal with the other fiefs of the Carolingian emperors, and their enthusiastic and self-sacrificing submission to the Church, did not immediately result in an advance of art. The early buildings of the Normans, mostly of wood, were for a century far inferior to the vaulted constructions of the South, and even to the convents which had been erected by the previous inhabitants of Normandy. When, at last, some attempt was made to further monumental ar-

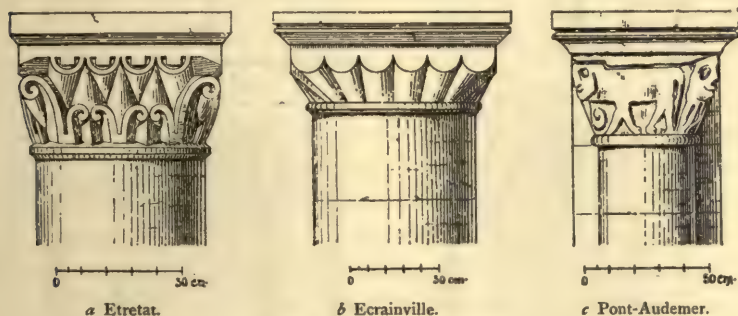


Fig. 217.—Norman Capitals.

chitecture it was necessary to call designers from the South. One of these was the before-mentioned William, abbot of St. Benigne in Dijon, a Lombard, who was invited to Normandy by the duke Richard II. in 1010, and, during the twenty years following, there erected nearly forty convents and churches. The Carolingian traditions of the country were thus, without doubt, influenced by those of Burgundy and Lombardy, but too little has remained to enable us to judge with certainty of the extent and the success of this combination. The Church of Léry near Pont de l'Arche displays a basilical range of columns of even heavier proportions than those of the Abbey Church of Tournus in Burgundy, erected by the same William, while the nave is covered by a barrel-vault without transverse ribs, like those of Southern France.

Basilicas with horizontal ceilings seem at first to have been universal, the columns, piers, and the ornamental patterns differing, however, from those of the basilicas built in imitation of classic models, and from those of the buildings of Saxony and the Rhenish countries. The columns, equal in diameter to the thick walls, are short and heavy; thus the projection of the capital was not of importance, while the bases were insignificant or altogether lacking. These characteristics appear in the horizontally ceiled basilicas of Ecrainville (*Fig. 218*) and Etretat, both in the Department of

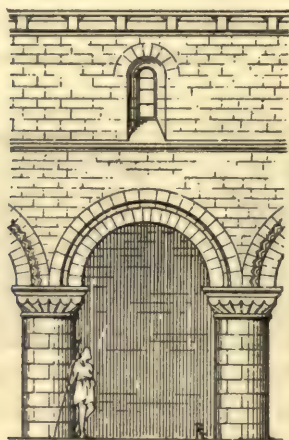


Fig. 218.—System of the Church of Ecrainville.

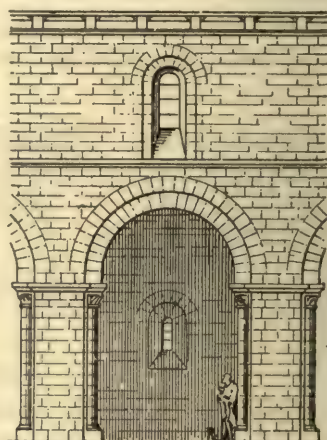


Fig. 219.—System of St. Germain at Pont-Audemer.

Seine-Inférieure. The forms of the low capitals (*Fig. 217*) are either rude imitations of Corinthian models, roughly decorated with figures, or ribbed,—those of the first class resembling, in their helpless misunderstanding of the antique patterns, the cornices of the Mausoleum of Theodoric at Ravenna, those of the second being absolutely barbarous. The arches are commonly decorated with chevrons, which continued the favorite pattern of the Norman architects. When the columns were replaced by piers these latter were often strengthened in the main axis by engaged shafts, as in the Church of St. Germain at Pont-Audemer, in the Department of Eure

(*Fig. 219*). A similar construction of piers was employed in the Abbey Church at Berney, the nave of which was originally covered with a horizontal ceiling, while the side aisles were vaulted in imitation of the buildings of Western France.

These churches resemble, in the simplicity of their arrangement and the bareness of their walls, the buildings of the earliest period of the Romanic style throughout Europe. The Church of Briquebec (*Manche*), however, although also covered with a horizontal ceiling, exhibits a more elaborate memberment of the piers by engaged columns, those adjoining the side of the supports towards the nave being continued to the top of the clerestory wall. An alternation of piers and columns combining two arcades to form a system appears in the Abbey Church of Jumièges, in the Department of Seine-Inférieure, consecrated in 1067 (*Fig. 220*). It cannot be definitely proved that these developments resulted from the influence of Lombardy, first introduced by the abbot William of Dijon; still this is made probable by the fact that the forms of the capitals, the galleries, and engaged shafts continued to the ceiling without function as supports of a vault, seem rather to have been derived from Northern Italian than from Rhenish models. German elements, indeed, seldom appear, while those of the South of France,—such as the arcades in relief upon the exterior of the apse,—were frequently adopted. Arched corbel-tables were rare, that of the extremely primitive Church of Than near Caen being exceptional; the main cornice was generally composed of sculptured consoles and terminated by a simple horizontal moulding. With this exception the exterior walls had in the earliest period no other memberment than simple pilaster strips. The façades alone were more richly treated. The portals were similar to those of Germany, the decorations being either formed of geometrical patterns or of rows of rudely sculptured human heads. The upper part of the front wall was occasionally ornamented with arcades and chevron mouldings, or with blind galleries, corresponding to the triforium of the interior. The towers, which were placed above the intersection of the nave and transept, or at one side of the body of the church, were similar in treatment to the façades.

The lowlands of Normandy, especially the Departments of Eure

and Seine-Inférieure, not being provided with stone suitable for vaulted constructions, long retained the horizontal ceilings of wood. But even where there was no lack of the requisite materials, the nave was occasionally covered with a horizontal ceiling, and, moreover, at a comparatively late period, as, for instance, in the Abbey Church of Mont-Saint-Michel (Manche), the side aisles of which have pointed vaults (*Fig. 221*). In the most important district of Normandy, the Department of Calvados,—including Caen, the Norman metropolis,—

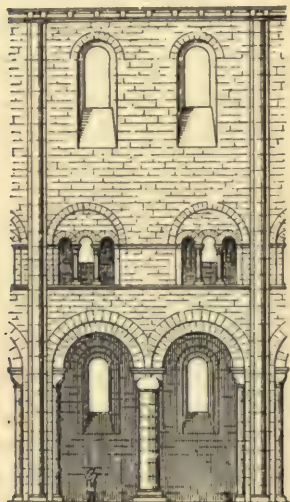


Fig. 220.—System of the Abbey Church of Jumièges.

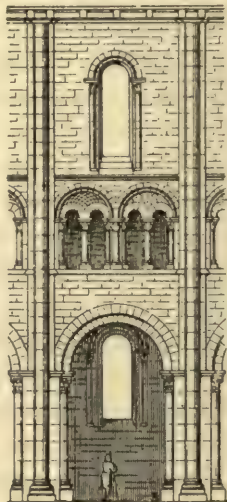


Fig. 221.—System of the Abbey Church of Mont-Saint-Michel.

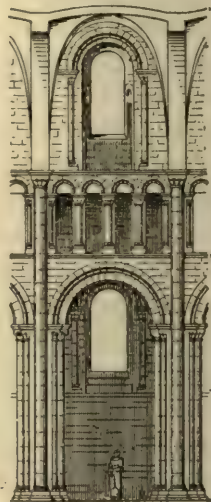


Fig. 222.—System of the Church of St. Georges at Boscherville.

vaulted constructions were successfully employed before the end of the eleventh century, an independent treatment of the cross-vault early appearing. This differed as greatly from the simple Roman form customary in Germany as from the Burgundian vaults of Vezelay. It is not certainly known whether the vaults of St. Georges in Boscherville (*Fig. 222*) are referable to the original construction of Radolf, the chancellor of William the Conqueror, or are as late as the twelfth century. Nor is it to be determined whether the Church of St. Nicolas in Caen, which exhibits a similar

system, was erected before or after the Church of Boscherville. More accurate information is at hand concerning the two chief buildings of Normandy dating to this period: the Church of the Holy Trinity (Abbaye aux Dames) and that of St. Étienne (Abbaye aux Hommes) in Caen. Both these churches were founded, in the year of the conquest of England, by Duke William and his wife Matilda, in expiation of their marriage of a forbidden degree of relationship. Ste. Trinité (*Fig. 223*), the smaller of the two, was prob-

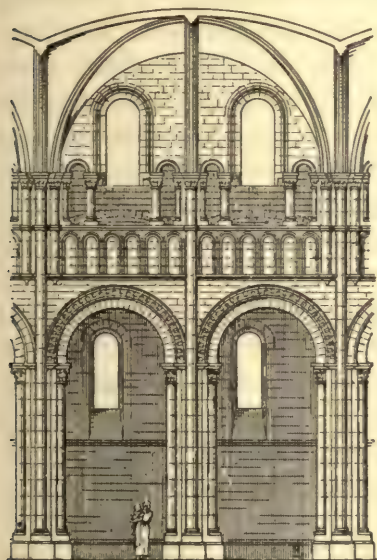


Fig. 223.—System of Ste. Trinité in Caen.

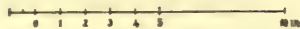
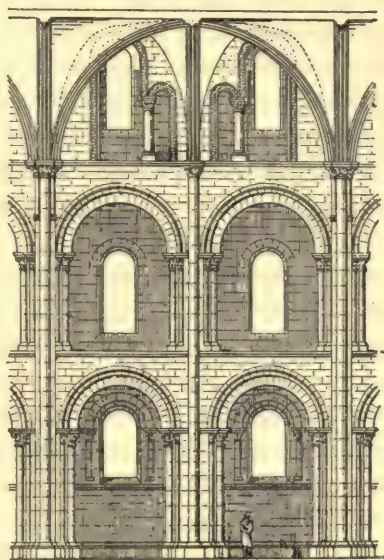


Fig. 224.—System of St. Étienne in Caen.

ably the first completed. It displays above the main arches an arcade in relief, and, higher than this, the triforium, so connected with the clerestory windows that the grouping of two arches in a single compartment, which had not been contemplated in the plan of the piers, was rendered possible. The vault itself is divided into six panels by a transverse arch springing from the intermediate pier, its summit rising to the intersection of the diagonal ribs.

This peculiar construction is still further developed in St. Étienne (*Fig. 224*), an imposing building, the nave of which is

65 m. long. From the alternation of the piers it is evident that the combination of two arcades into a single compartment was determined upon in the original design. Through the introduction of a gallery, the arcades of which are almost as tall as those of the lower story, the clerestory windows were crowded to so great a height that the architect was unable to begin his main vaults, as in *Ste. Trinité*, on a level with the capitals of the triforium. The impost of the transverse arches was consequently placed directly above the galleries, this arrangement having the advantage of permitting the upper vaults of the side aisles to serve as buttresses. The clerestory windows were thus much cramped, and this drawback could not be entirely overcome by the employment of the transverse ribs rising from the intermediate piers, as an integral part of the vaulted construction, although the summit of the wall arches thus attained a much greater height. The disadvantageous position of the windows was but of slight account compared with the bold and important innovation in the system of vaulting. Unfortunately it is not possible to determine how long after the foundation of the church the stone ceilings were executed. On the whole, the Norman buildings of this class compare favorably with the vaulted constructions of Burgundy and the Rhenish countries, by both of which they must have been influenced in some measure; still, they did not equal the technical exactness of the former, or the rhythmical arrangement of the latter works.

The before-mentioned buildings of Caen represent the greatest advance of the Romanic style in Normandy. In the twelfth century the constructive framework was hidden beneath a luxuriant decoration, which was the more objectionable as its patterns consisted solely of straight-lined geometrical forms, and gave but little scope to the imagination of the designer. This is the case with the Romanic portions of the Cathedrals of Bayeux and Evreux, *St. Julien* near Rouen, the Church of Savigny, etc. It is plain that the centre of the artistic activity of the Normans was no longer in Normandy itself but in their English kingdom,—their former home becoming a mere province, dependent in many respects upon England. The Norman architecture of succeeding ages is hence to be reserved for consideration in connection with that of Great Britain.

In striking contrast to the successful artistic efforts of this last race to be incorporated into the French nation, architecture remained almost entirely undeveloped in the Ile de France and Champagne,—provinces which in earlier ages had taken the most prominent part in the history of Gaul. Even Paris, a place of great importance under the Merovingians (compare page 209), has few memorials of independent interest referable to the tenth and eleventh centuries. Neither the reconstruction of St. Germain-des-Prés, before the year 1014, nor that of Ste. Geneviève, after 1068, displayed any advance beyond the style customary in the Merovingian and Carolingian periods. The obliteration of almost all the works of this epoch by subsequent Gothic constructions makes it difficult to gauge the artistic advance, but the entire silence of contemporary writers does not lead to the assumption of any notable performance. The few churches of Champagne which have been preserved are of modest dimensions and exhibit the influence of the South. A pointed barrel-vault appears in St. Savinien near Sens; the passage surrounding the apse with radial chapels, customary in Burgundy and Auvergne, is adopted in the plan of the Church of Vignory near Andelot. The transverse barrel-vaults of the side aisles of St. Remy near Rheims, A.D. 1036 to 1049, point to the traditions of Burgundy and especially of Tournus, while the remainder of this enormous basilica with two-storied side aisles shows reminiscences of the Carolingian age.* German influences were felt as far as Châlons-sur-Marne, as is proved by the Church of St. John in that place.

It is indeed strange, in view of the great artistic activity in the more remote provinces of France, that the works of architecture in its centre remained so unimportant until the middle of the twelfth century. The absence of this development in the intervening tract made it possible for the styles of the North and the South to diverge even more than can be accounted for by their geographical and climatic conditions. As Schnaase has remarked, the antique traditions appeared during this epoch more exclusively in the art of the Provence than in that of Italy itself, while the ornamentations of the Normans were even more entirely composed of Northern

* Viollet-le-Duc, *Dictionnaire de l'Architecture Française*, IX., p. 240.

elements than those of Germany. In the German Empire the centralization of culture was much more marked than in France, and the architecture of the former country was hence of a more uniform character.

SPAIN.

The Christian architecture of the Iberian peninsula* could be affected in its development by no other European influences than those of South-western France. The difficulties which the Pyrenees presented to the communication by land were in great measure overcome by the passes, especially those at either end of this range; but the marine intercourse with the more remote coasts of France and Italy was disturbed during this period,—in the Mediterranean by the Saracens, and in the Bay of Biscay by the Normans.

Spain, like Southern France, long retained the traditions of a civilization antedating the Christian epoch. Especially in the South, which had been a province of Carthage, some reminiscences of the Phœnician style were retained throughout the Roman domination, and were not entirely obliterated even by the occupation of the Visigoths, A.D. 417 to 717. The few fragments of stone sculpture remaining from this period resemble the Byzantine ornaments of Syria in a certain sharpness peculiar to all imitations of empaistic works. The similarity of the early Christian buildings of Spain to those of Southern France is rather due to the influence of the same Roman elements than to any introduction of these traditions from France, notwithstanding the fact that in the neighborhood of the Pyrenees a like development naturally resulted from the political union of some districts north of the range with Spain. After the conquest by the Moors the civilization of Spain was sharply divided into two branches. The one produced the Mohammedan style of the South, divisible into two chief periods, and described above as that of Cordova and that of Seville and Granada, corresponding approximately to the Romanic and Gothic epochs. The other appeared in the Christian lands of the North and in those provinces

* G. E. Street, *Some Account of Gothic Architecture in Spain*. London, 1865.—*Monumentos Arquitectónicos de España*. Publicados de Rl. Orden y per disposicion del Ministerio de Fomento. Madrid, 1859-1884. Unvollendet.

which had been recovered from the Moors, and shared the general development of the Romanic style in the rest of Europe. Differing in this respect from the Normans in Sicily, the Spanish Christians adopted but few features from their more artistic Moslem enemies, while the Arabs remained entirely unaffected by this phase of Christian art.

The political state of Northern Spain at this time was not such as to further an independent and systematic architectural activity like that of France or Germany. The devastation and impoverishment of the comparatively barren region which had remained to

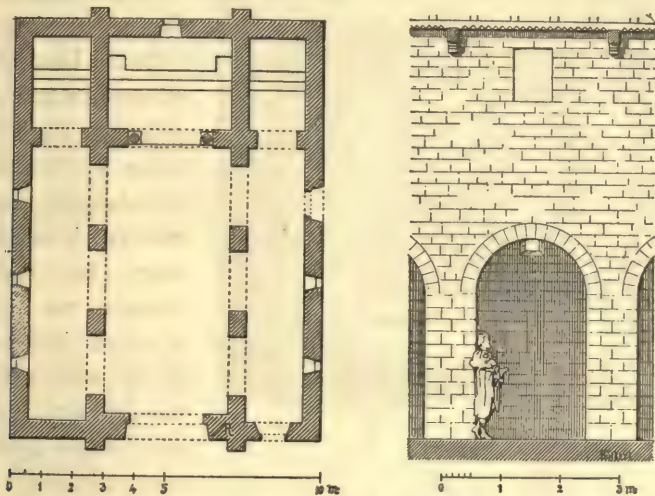


Fig. 225.—Plan and System of S. Adrian in Tuffon.

the Christians precluded all those more extensive constructions by which alone a monumental style can be developed. The most pressing necessities were met as best might be, without constructive innovations or artistic endeavors of any kind. The few buildings, or parts of buildings, of which the date is accurately known, —such as the crypt of S. Cruz in Cangas in Asturias, A. D. 739, the Church of Santiannes de Pravia, A. D. 776, and the crypt of the Camara Santa at Oviedo, A. D. 842,—are extremely rude, and mostly have small barrel-vaults or horizontal ceilings supported upon piers, all of the greatest possible simplicity. Similar features

are displayed in the Church of S. Adrian in Tuñón in Asturias

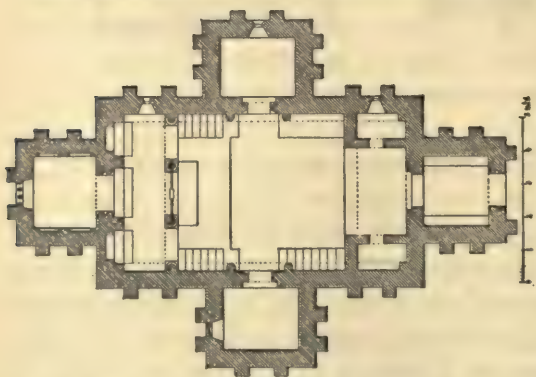


Fig. 226.—Plan and Interior of S. Cristina in Lena.

(*Fig. 225*), the age of which is less certainly known. The plan was generally a simple rectangle, without apses, the three aisles of the early Christian basilica being at times exchanged for the cruciform arrangement of Byzantine edifices.

If the identification of certain remains in Asturias, Galicia, and Leon by Spanish archæologists may be trusted, it would appear that some attempts to develop a more independent style, especially in the decorative details, were made under the energetic kings Ramiro I., A.D. 843 to 850, and Alfonso III., A.D. 866 to 910. Among the memorials of these rulers may be mentioned the Church of S. Miguel of Linio in Asturias, of Byzantine cruciform plan, with barrel-vaults, the columns of which are

provided with bases of barbarous design, and display no trace of

the Corinthian forms; also the Ermita de S. Cristina of Lena in Asturias (*Fig. 226*), the appearance of which has, however, been much altered by the introduction of a timbered ceiling in place of the original barrel-vault. A somewhat higher development is noticeable in S. Pedro at Nave in Leon, where the barrel-vaults are of unequal height, and are placed in the direction of the transept,—

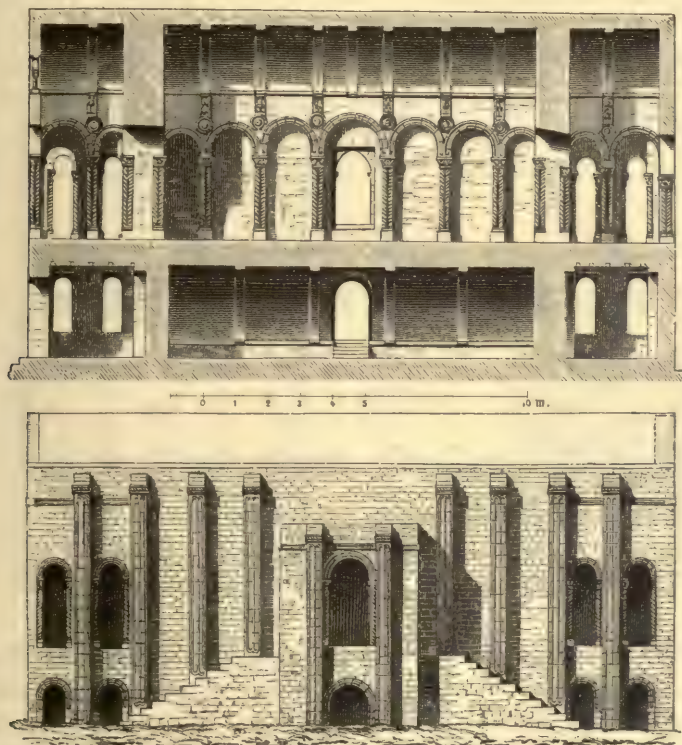


Fig. 227.—Façade and Longitudinal Section of S. Maria of Naranco.

the capitals of the columns, partly projecting, partly treated as imposts, being without Corinthian reminiscences.

The most important architectural monument of the kingdom of Asturias during the ninth and tenth centuries is S. Maria of Naranco, which Spanish antiquaries have designated as the palace of King Ramiro I. (*Figs. 227 and 228*). The character of its decorations, indeed, seems to indicate that this building was erected at

about the same time as S. Cristina of Lena, and it must be acknowledged that the general plan is rather that of a palace than of a church. But notwithstanding these indications, it is impossible to determine with absolute certainty either the purpose of this remarkable edifice or the date of its erection. However different the decorative treatment of the structure, the plan is certainly similar to that of many German palaces of the Romanic period. The grand hall, with subsidiary chambers at either end, is built above a low barrel-vaulted ground-floor, access to it being provided by a monumental staircase upon one of the longer sides. The walls of the interior are richly decorated with arcades in relief, the coupled columns of which have spirally fluted shafts, and capitals imitated from

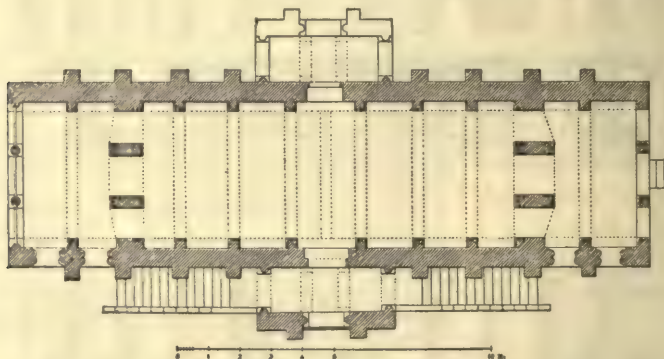


Fig. 228.—Plan of S. Maria of Naranco.

Corinthian and Byzantine forms. The connection between the arcades and the ribs of the barrel-vault is effected by peculiar vaulting shafts which rise from circular shields. The details of these supports, and of the capitals beneath them, are strikingly similar to those of the before-mentioned Church of S. Cristina of Lena: this repetition making it evident that these were generally recognized architectural forms, and not due to a caprice of the designer. The same is the case with the rounded terminations of the moulding of the archivolt, as this feature is also observable in the friezes and buttresses of the exterior, giving to these latter, which were not built in bond with the masonry of the wall, the appearance of being fluted. While the treatment of the interior is somewhat similar to

the system of St. Pierre de Reddes (*Fig. 202 b*), the more independent design of the exterior differs entirely from the French models. Nevertheless, these memorials are not sufficient to warrant the assumption of an architectural style peculiar to Northern Spain during the Romanic period.

The influence of the Moors established in the South was not without its effect upon the architecture of the Christian provinces, as is evident from the columnar basilicas of S. Juan at Baños in Old Castile, and S. Miguel of Escalada in Leon, the Corinthian cap-

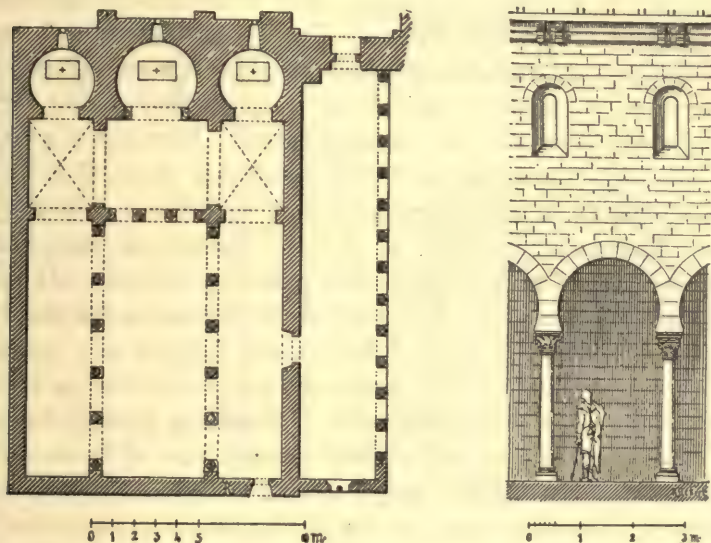


Fig. 229.—Plan and System of S. Miguel of Escalada.

itals of which support arches of horse-shoe shape (*Fig. 229*). The same form appears in the double windows of the Basilica of S. Salvador in Valdedios in Asturias, the capitals of the intermediate columns of which are Byzantine in style. In none of these examples is there an apsidal projection of the choir, the altars being placed in rectangular chapels, frequently of two stories, or in round niches appearing only upon the interior, as in S. Miguel of Escalada (*Fig. 229*). The Church of Corpus Christi at Segovia is a direct and almost servile copy of a Moorish model, the so-called Old Synagogue (S. Maria Blanca) of Toledo.

The churches of Spain with an apsidal formation of the choir seem to belong to a later age. In the remarkable Church of S. Pedro y S. Pablo at Barcelona the ornamentations of the façade, the dome above the intersection of transept and nave, the portal, and probably also the cruciform plan with one main apse and two semi-circular chapels at either end of the transept, cannot be referred to the original construction of the tenth century. The case is similar with S. Lorenzo in Segovia, which, though without a cupola, closely resembles the preceding church, and with S. Daniel in Gerona, where the transept is provided with apses; both of these buildings display the influences of Southern France. The domed Church of S. Pedro at Camprodon in Catalonia, of cruciform plan, is more independent in character, the eastern wall of the transept having four rectangular chapels instead of the terminal apses. Otherwise a group of three apses, corresponding to the nave and side aisles, like the rectangular chapels of the before-mentioned choirs, was customary in Spain. The poorer province of Asturias formed an exception in this respect, its churches, which were generally without side aisles, having but a single apse. Instances of this formation are the Parochial Church of Ujo, S. Juan of Priorio, and S. Maria of Villamayor.

Most of the churches with domes and apses are as heavy in their proportions as the earlier structures of Southern France, the influence of which upon the ecclesiastical architecture of Spain, noticeable from the first in the barrel-vaults, became more and more important. The Provençal system of decoration of the apses and of the rectangular choir is especially recognizable in the blind arcades of the interior and the tall engaged columns and modillion cornices of the exterior. They did not, however, attain that classic beauty of detail which had been preserved in Southern France.

Three-aisled churches with three apses were built throughout Spain during the first half of the twelfth century. The same system is observable from the southern slopes of the Pyrenees,—as in S. Pedro at Gerona and S. Pedro at Huesca,—to Galicia, as in Santiago and S. Maria at La Coruña,—the type being perhaps best represented at Segovia, while the most varied and elaborate examples appear at Avila. In contrast to the usual memberment of the piers with engaged columns, S. Millan at Segovia (*Fig. 230*), displays

a regular alternation of columns and piers, while the side walls are flanked by cloister-like passages, which frequently occur in Spain, though usually on one side of the building only. S. Andres y S. Segundo, alone of the numerous churches of Avila which belong to this class, is entirely without traces of the Gothic style, both S. Pedro and S. Vicente having pointed cross-vaults, which prove them to have been completed at a later date. Other examples worthy of remark are the Collegiate Church of Toro (Leon), with its magnificent sixteen-sided tower above the intersection of transept and

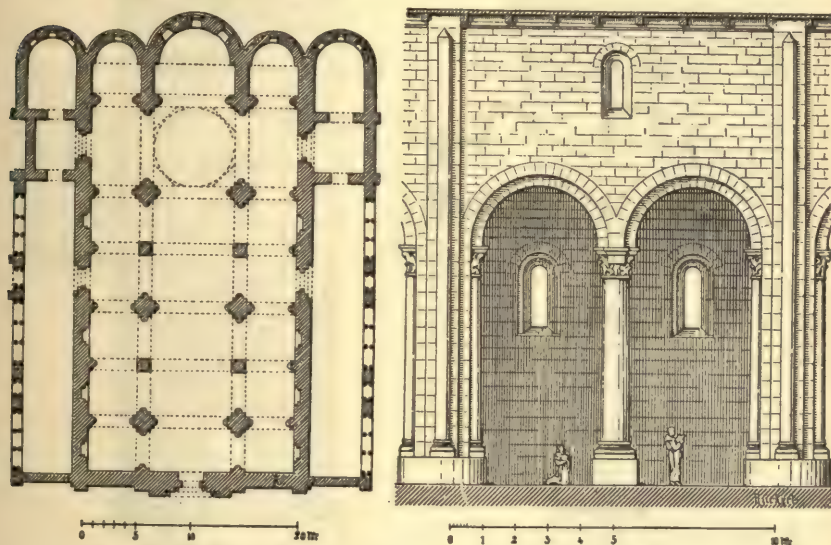


Fig. 230.—Plan and System of S. Millan at Segovia.

nave, richly decorated with windows and blind arcades, and with four smaller towers; and S. Isidoro in the town of Leon (*Fig. 231*), the clerestory windows of which are so close to the summits of the main arches that it is plain they were originally intended as the apertures of a triforium.

While the cross-vaults above the side aisles of the last-mentioned church display the influences of Auvergne and Toulouse, the most prominent monument of the Romanic style in Spain is an absolute copy of a French edifice. This is the celebrated resort of pilgrims, the Church of Santiago of Compostella in Galicia (*Fig. 232*), erected

during the century preceding 1188, which is so like the Church of St. Sernin in Toulouse, built between 1060 and 1096, that the direct transference of the French design is evident beyond a doubt. This is not contradicted by the fact that the body of the church in Santiago is one compartment shorter than in St. Sernin, and the transept as much longer, or that the five aisles of the French building have here been reduced to three. Without this influence the dimensions of the transept, which had no parallel in Spain, would be inexplica-

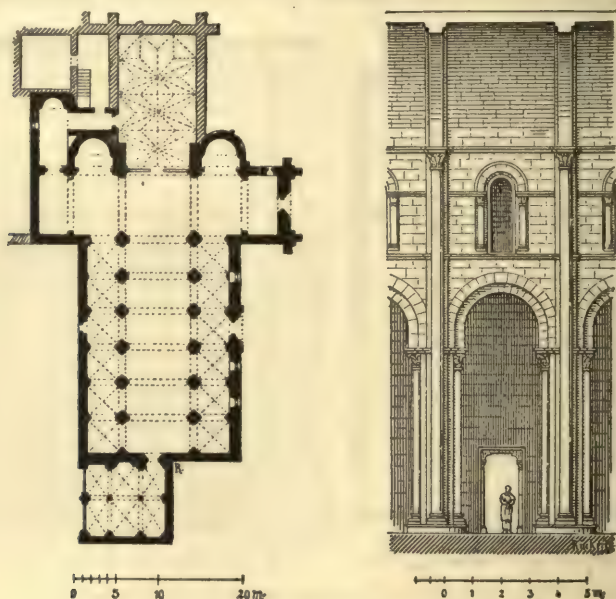


Fig. 231.—Plan and System of S. Isidoro in Leon.

ble, as would also the arrangement of the choir with the surrounding passage and radial chapels. To this may be added the regularity of the proportions and details of the structure, the height of the nave equal to the width of the three aisles, the gallery with an arcade of columns, and the introduction of engaged shafts upon all sides of the piers, those towards the nave being continued to the impost of the vault as supporters of the transverse ribs. The barrel-vaults of the lower story of the side aisles and the bisected forms above also point to the constructive methods of Auvergne and Toulouse.

Later restorations have much disfigured this imposing structure of granite, the radial chapels and the apses of the side aisles having in greater part been destroyed.

It is natural that so important a work, on so celebrated a site, should have exercised a great influence upon the neighboring country. The arrangement of the Cathedral of Lugo is unquestionably derived from Santiago, although its arcades, gallery, and barrel-vaults are of a pointed form. The advance of France in the devel-

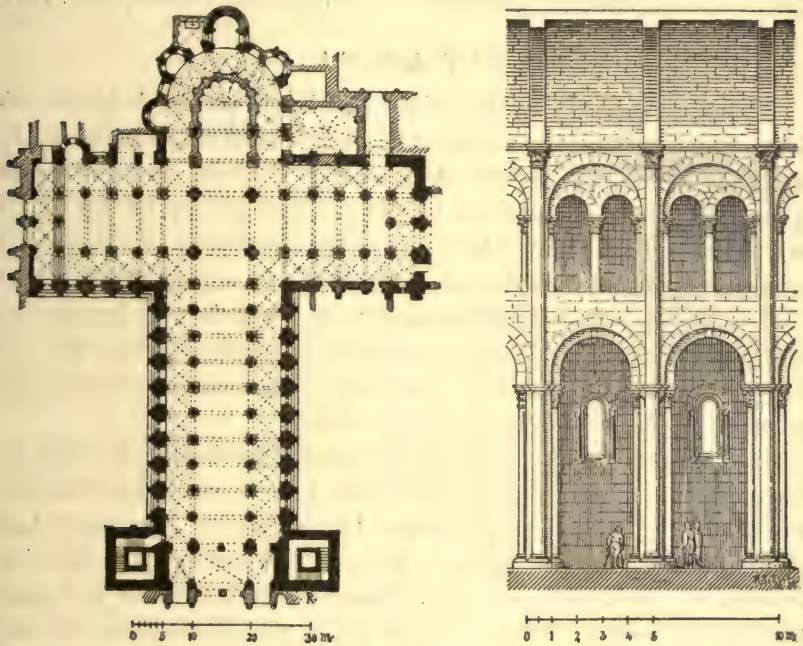


Fig. 232.—Plan and System of Santiago of Compostella.

opment of the Gothic style was soon followed by Spain, and after the appearance of the characteristic features in the cross-vaults of S. Vicente and S. Pedro in Avila the so-called transitional style became more and more prevalent. Examples of this period are the old Cathedral of Salamanca, A.D. 1120 to 1178, and the Cathedrals of Tarragona, begun in 1131, of Tudela, completed in 1188, and of Lerida, begun in 1203. These churches, which resemble the buildings of France only in the main features, were all three-aisled, the

clerestory walls being supported upon piers, and the short choir terminated by three parallel apses. A more direct introduction of later French forms is evident in the Abbey Church of Veruela, probably built between 1146 and 1171, the style of Burgundy having evidently been imported by the French Cistercians. These imitations did not, however, become typical, the architecture of Spain not attaining to an importance comparable to that of France until the appearance of the fully developed Gothic style, and its adoption in the magnificent Cathedrals of Burgos and Toledo, A.D. 1221 and 1227.

GREAT BRITAIN.

The geographical position of the Iberian peninsula is alone sufficient to account for the architectural relations of Spain with Southern France, but the artistic dependence of Great Britain* upon Normandy must be explained by the political history of the island as well as by its vicinity to this part of the continent. England was even more subjected to the influence of Normandy in architectural than in social and political respects; for while in the former the earlier methods of building were entirely supplanted by the style of Northern France, in the latter the Anglo-Saxon elements decidedly preponderated, even under the Norman rule.

It is beyond question that, before the decisive battle of Hastings, the architectural works of England were inferior to those of Northern France. Until the end of the tenth century Normandy had taken a full share in the advance of classical Carolingian civilization through its important convents. Burgundian influences had soon after made themselves felt, and had led to the development of that peculiar style which renders the architecture of the North of France fully equal in artistic interest to that of the South. The classic and early Christian traditions of England, on the other hand, had been entirely swept away by the invasions of the Danes in the ninth century, this throwing the country, in artistic respects, upon its own resources, which were not sufficiently important to resist the influence of the brilliant style introduced from beyond the Channel.

* J. Britton, *The Architectural Antiquities of Great Britain*. London, 1835.—Idem, *The Ancient Architecture of England*. London, 1845.

The English remains dating to the Anglo-Saxon and Danish periods are few in number and of uncertain date. It appears that almost all the churches founded by the Saxon kings and by Canute the Great were of wood, and that even at the beginning of the eleventh century many of them were built of palisades, that is to say, of upright timbers and boards instead of horizontal block-beams, and were thatched with reeds. Stone structures were not entirely lacking, but only those were of importance which had been designed in the Norman style, such as Westminster, the founder of which, Edward the Confessor, had been educated in France. Almost all the buildings were of nogging, or of stones roughly cut and so disposed as to imitate the forms of the timbered framework of this manner of construction, long blocks of stone being embedded in an extremely rude masonry of rubble and flint facings, not only horizontally and as uprights, but in some cases obliquely, while triangles take the place of arches above window-openings and blind arcades. This is the case in the Church of the Castle of Dover, the Church of Brixworth (Northampton), and especially in some towers like that of Earls Barton in Northampton (*Fig. 233*),



Fig. 233.—Tower of Earls Barton.

St. Peter at Barton-upon-Humber, and Barneck (Lincolnshire). In all these works the imitation of the wooden beams is unmistakable, and in like manner the adoption of designs of timbered constructions are evident in the galleries and groups of windows, the small columns of which resemble balusters, being without any of the traditional forms of bases and capitals, while the encircling fillets and the bulging forms give them a marked resemblance to the products of the turning-lathe (*Fig. 234*). The annulets appear as an imitation of hoops of metal around wooden supports, and it is worthy of note

in this connection that the capitals, bases, and arches of the Abbey Church of Waltham, built between 1062 and 1066, are said to have been reveted with sheets of gilded copper. This empaistic work, which would have been impossible without a core of wood, or at least a wooden model, may be compared to the sheet-armor of that period, and was in accord with the martial character of the people. The memberment of the walls in the interior of the larger churches must have been similar to the exterior of the towers of Earls Barton or St. Peter in Barton-upon-Humber.

After the conquest of England by the Normans, the French occupied not only the highest political offices but the most influential positions of the Church. They thus had the opportunity of further-

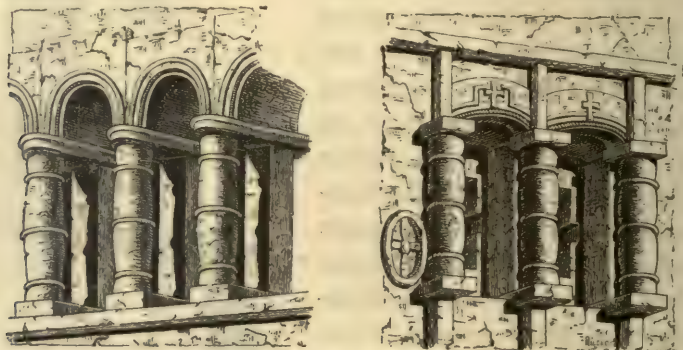


Fig. 234.—Columns of Earls Barton.

ing the erection of ecclesiastical buildings and of introducing the constructive methods of Normandy. The same Lanfrancus who had built the finest edifice of Northern France, St. Étienne at Caen, became archbishop of Canterbury, and after the destruction of this town by fire, A. D. 1070, erected there a copy of St. Étienne. His nephew, Paulus, was not so well enabled to follow the designs of his native country in the building of the Cathedral of St. Albans, finished in 1116, as the materials which had been provided by his Saxon predecessors obliged him to retain in great measure the methods of construction previously customary. Gundulphus of Caen, who superintended the re-erection of the Cathedral of Rochester, had been the military engineer of William the Conqueror, and

appears to have transferred the style of his fortifications even to ecclesiastical edifices—these characteristics being observable in the Chapel of St. John in the Tower of London (*Fig. 235*). Its simple plan, without a transept, the passage surrounding the choir without radial chapels, the plain and massive columns, and the walls and barrel-vault entirely without architectural memberment, are very different from the forms common in Normandy during this period.

Otherwise the more important buildings of England, erected



Fig. 235.—Interior of the Chapel of St. John in the Tower of London.

during the twelfth century, closely follow the style of Normandy. The effect was generally more heavy and gloomy, because of the massiveness of the masonry, resulting from the employment of a casting of cement and stone chips between ashlar facings. When columns were introduced instead of piers they were exceedingly thick and short, being built up of small stones, and appearing the more clumsy because of the comparatively low and insignificant capitals and bases. The capitals were commonly ribbed like those of Normandy, and in some instances display a grouping which was

evidently derived from the imposts of piers, and was entirely without organic connection with the shaft. The galleries and clerestory windows were generally similar in form to those of Normandy, but the engaged shafts of the Romanic epoch were not at this time employed in England as the supports for vaults like those of Caen,—the main ceiling being a horizontal timbered construction, while the lean-to roofs of the side aisles were open to the rafters. On the

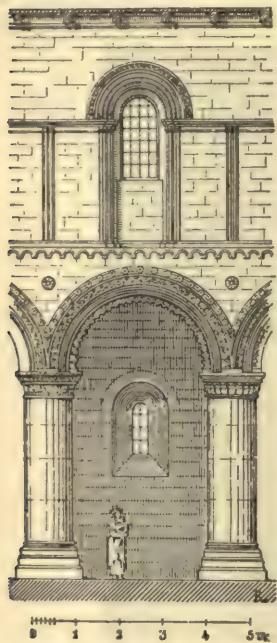


Fig. 236.—System of the Nave of Steyning Church.

other hand, the walls were often richly carved, and the shafts of the columns were covered with linear ornaments, especially in a spiral arrangement. The archivolts were divided into many mouldings, and ornamented, at least on the side towards the nave, with chevrons, and at times with billets, battlement friezes, checkers, diamonds, scales, and similar Romanic patterns,—made attractive by their ingenious diversity (*Fig. 236*).

This profuse and carefully executed decoration was the more required, as the arrangement of plan and the constructive forms by no means equalled those of the Rhenish countries or of Burgundy. At first the continental choir with an apse was employed, but a return was soon made to the long-accustomed rectangular termination, which in Germany and France had only been retained by the dull and inartistic Cistercians. On the other hand, the pres-

bytery beyond the transept was so extended that it almost equalled the nave in length, the transept being placed in the middle of the church. The perspective effect of the interior was thus decidedly improved. Notwithstanding the lack of a surrounding passage and radial chapels in the choir, the necessary sites for the altars were provided by an extension of the eastern side of the transept by as many chapels as there were compartments, or by adding a second transept at the end of the choir, as, for instance, in the Cathedral

of Durham, where space is thus provided for six subordinate altars (*Fig. 237*).

A more remarkable deviation from the style of Normandy is noticeable on the exterior. By their massiveness, low proportions, and bald horizontality the English churches were even more removed in character from those of the Rhenish countries than were the buildings of Northern France. The three stories of windows

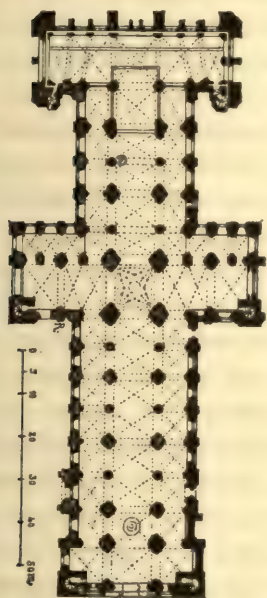


Fig. 237.—Plan of the Cathedral of Durham.



Fig. 238.—System of the Exterior of the Cathedral of Durham.

made necessary by the galleries seldom equalled in height the two divisions of the Romanic cathedrals of Mayence and its neighborhood. The ground-floor was not elevated above the level of the earth, and the portals consequently became low and insignificant. The buttresses did not have the ornamental character of a framework, like the pilaster strips of the German Romanic edifices, as they were rarely continued to the top of the wall and were consequently not connected with the main cornice. The forms of the

Romanic corbel-table were seldom employed. The walls were divided by numerous horizontal string courses, which were of a most stiff and inartistic effect when the divisions of the walls between them were not relieved by blind arcades (*Fig. 238*). When arches in relief were employed they often surpassed those of Normandy in delicate elaboration, being supported upon groups of engaged shafts instead of upon simple pilasters. They were occasionally varied with good effect by intersecting arches extending from the first to the third and from the second to the fourth support. The roofs above the horizontal ceilings were but slightly inclined, and were often entirely hidden from view by the introduction of battlements above the main cornice.

These battlements, together with the emphasized division of the exterior into stories, gave the English churches rather the appearance of fortresses than of places of worship. In like manner the towers resembled the primitive Anglo-Saxon barbicans or keep-towers. These structures were seldom erected in pairs, as in the imposing edifices of Germany. They were placed above the intersection of the transept and nave,—before the western front, or, in some cases, upon one side of the body of the church, and were often of enormous dimensions, divided by cornices into cubical stories. Some relief was afforded by a lavish decoration of blind arcades, but the resemblance of these structures to fortifications was increased by the terminating cornice of battlements, often rendered of even more defiant aspect by the small bartizans and turrets added at its corners. These towers, but slightly diminished, emphasize the heavy and angular character of the Norman buildings of England, while conveying the impression of a massive indestructibility not even equalled by the edifices of the Byzantines.

The Norman style had reached its perfection before it was introduced into England, and did not experience any true development upon the island. This want of growth, and the fact that there were no monuments of this style erected after the first century of the Norman occupation, renders it impossible to treat of the Romanic architecture of England in a purely historic manner. Two chief classes of buildings are indeed to be distinguished, but these were not consecutive in point of time, appearing from the first almost side by side.

A considerable number of ecclesiastical edifices show the attempts to effect a compromise between the Anglo-Saxon and the Norman styles. Traces of the classic and early Christian disposition of the plan and of Anglo-Saxon methods of decoration appear, together with the Norman forms. To this class belongs the before-mentioned Cathedral of St. Albans. A certain retention of the columnar basilical plan is noticeable in St. John in the Tower of London, in the Church of Steyning (Sussex), and even in the Cathedral of Gloucester,—all of which were erected before the year 1100,—during the first decades following the Norman conquest. The comparatively high capitals in the chapel of the Tower still preserve a faint resemblance to Corinthian forms, which otherwise had almost entirely disappeared. It may be assumed that these structures are referable in some measure to the school of Bishop Gundulphus of Rochester, the builder of the Tower chapel.

The second group comprises a number of churches resembling the Cathedral of Canterbury, built by Lanfrancus, and consequently related to St. Étienne in Caen, which had been closely imitated in this first English cathedral of the Norman style. The Cathedral of Canterbury itself was almost entirely altered a century later by a Gothic reconstruction, but the transept of the Cathedral of Winchester, dating to the original building, A. D. 1079 to 1093, and the ruins upon the island of Lindisfarne near Berwick, A. D. 1090, are of a system similar to that of St. Étienne, notwithstanding the alternation of piers and columns. The French model was also followed by the most important English buildings of the twelfth century: the Cathedrals of Durham (*Fig. 237*), A. D. 1108 to 1128; Rochester, from about 1090 to 1130; Ely, A. D. 1133; Chichester, A. D. 1114 to about 1140; Peterborough (*Fig. 239*), A. D. 1117 to 1145; and the Abbey Church of Waltham (*Fig. 240*). These structures, though delicately and lavishly decorated with details of extremely careful and intelligent stone-cutting, exhibit but little independence of design in the portions referable to this period. Although the piers were occasionally more elaborately membered, this did not lead to a constructive advance; the cornices and decorations did not influence the heavy and clumsy forms of the masonry, and there was altogether no progressive improvement. It is especially remarka-

ble that the ceilings of stone to which the framework naturally pointed were but seldom introduced, either because vaults of large span were beyond the constructive ability of the builders, or because the horizontal ceilings of wood were retained in conservative England from a preference for this more accustomed feature.

In view of this want of development in constructive respects it is not surprising that the more difficult arrangements of plan, such, for instance, as the apsidal termination of the choir, were avoided.

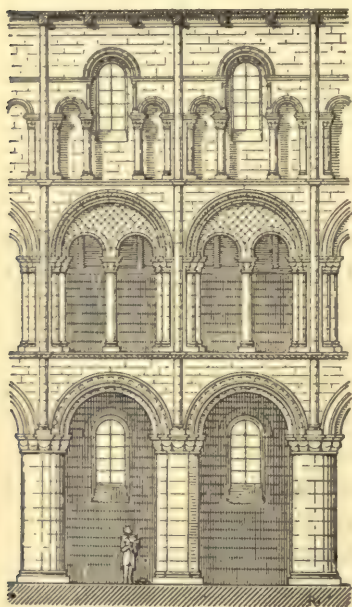


Fig. 239.—System of the Cathedral of Peterborough.

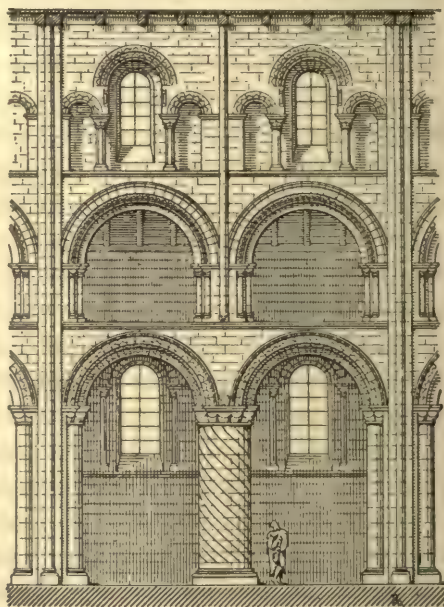


Fig. 240.—System of the Abbey Church of Waltham.

Concentric churches became even rarer than before, St. Sepulchre at Cambridge (*Fig. 241*) being the only edifice of the kind referable to the Romanic period. Even here the memberment of the archivolts has no organic connection with the short and thick columns, while the want of harmony of the interior is increased by the disproportionately high dome.

As no convents dating to the Romanic period have been pre-

served in England, the dwellings are to be judged only from the enormous keep-towers. Since they were not intended merely for occupation during a siege, but provided the living-rooms of the master and accommodation for a number of servants, these towers were more spacious than the barbicans of German castles. The excessively thick walls were membered upon the exterior with pilaster strips. The hall above the dungeon or well was occupied by the menials, while that on a higher level was reserved for the master,

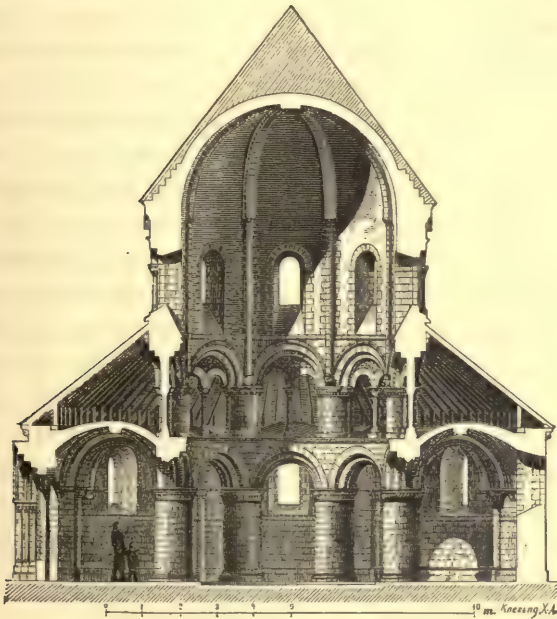


Fig. 241.—Section of St. Sepulchre at Cambridge.

deep niches providing the requisite chambers, two stories of which in some instances corresponded to the height of the central hall. These lateral rooms were connected by passages and staircases. Their small windows gave light and air to the main hall, the central space being extended by the richly ornamented intervening arches. Like the cathedrals of England, most of the rectangular keep-towers were imitated from Norman models, such as the well-preserved donjons of Chambois, Lillebonne, and Courcy. A greater

number of these structures, however, have remained in England than in France. Noteworthy examples are the Tower of London, the Castle of Rochester, also dating to the time of Gundulphus, and the Castles of Guildford (Surrey), Gainsborough (Yorkshire), and Hedingham (Essex).

Scotland* was slow in following the example of England. The few buildings of this thinly populated and comparatively poor country, antedating the age of King David I., A. D. 1124 to 1165, were even less important than those of the Anglo-Saxons. It naturally resulted from the mountainous and well-wooded character of the land that timbered constructions were universal; buildings of wood were commonly designated by English chroniclers of the period as "*more Scotorum*." The few churches of stone were of small size and wholly without artistic importance. In the twelfth century, however, so many Norman edifices had been erected in England that their effect could not but be felt in Scotland, notwithstanding the enmity of the two races. This was the more natural as the Scots stood in more intimate and amicable relations to the French than did the English, and consequently received the same influence at first hand. The Norman style of Scotland thus differs but little from that of England, and having been introduced at a comparatively late period, had no opportunity for further development. The Church of Kirkwall, upon Pomona, one of the Orkney Islands, was begun in 1136 and completed with Gothic forms, while the Abbey Churches of Jedburgh and Kelso belong entirely to the transitional period.

Ireland† was somewhat more independent in artistic respects than Scotland, having been Christianized at an earlier age. Preserved by its insular position from foreign influences, its art, as early as the eighth century, was of a peculiar character. The Celtic style was, it is true, merely decorative, the patterns being derived from

* R. W. Billings and W. Burn, *Baronial and Ecclesiastical Antiquities of Scotland*. London and Edinburgh, 1845-1852.

† G. Petrie, *The Ecclesiastical Architecture of Ireland anterior to the Anglo-Norman Invasion*. Dublin, 1845.

the primitive forms of the North, and developed to a high degree of technical perfection. As we have seen, these designs were not only extended throughout a great part of the Continent by the illuminated manuscripts introduced through the Irish missionaries, but appeared in the braided and intertwined decorations which were common during the Romanic period, and supplanted to a great extent the classic foliage and the straight-lined figures of other styles. In architectural design and construction, however, the island was so far behind the civilization of the Carolingians and Byzantines that during the Romanic epoch it not only was wholly without influence upon the more advanced countries, but was itself destitute of the qualities requisite to accept the superior methods of building practised upon the Continent.

Side by side with the chapels of wood, built "*Scotico more*" in Ireland between the eighth and twelfth centuries, structures of stone occasionally appeared. These were, however, of so primitive a plan and of so rude a masonry, resembling that of the Cyclopean walls of classic lands, that they would naturally be referred to a prehistoric age were not the date of their erection frequently assured by documentary evidence. Rectangular, horizontally ceiled chapels are often combined with somewhat smaller square choirs, the ceilings of the latter being occasionally shaped like pointed barrel-vaults. These structures were, however, built without vousoirs, in horizontal courses, the projection beginning from the ground. There was no trace whatever of the true principles of vaulted construction; even the doors and windows were either square-headed, or terminated by large stones so inclined as to form a gable, or by a monolithic lintel cut to a curve. Both the constructive and the decorative forms of these buildings were exceedingly rude.

To this class belong the chapels of Gallerus, Lough Corrib, Rattass, Glenalough, Kilmaduagh, Dairbhile, and Fore. As little artistic importance can be attached to the towers of this period, which in their cylindrical plan and greatly diminished elevation contrast strongly with the square and massive towers of England. The masonry of these piles is decidedly superior to that of the body of the churches, with which they were not immediately connected, but in artistic respects they were of quite as little interest.

These structures of stone do not seem to have been carved with decorative details before the eleventh century. At all events, no monumental ornamentation is known which does not more or less distinctly betray the influence of the Norman style. The portal of the round tower of Timahoe, with its peculiar bases and capitals of intertwined patterns and rude sculptures of human heads, displays, by the introduction of chevrons upon the mouldings of the arch, the transition between the forms of the indigenous carvings of wood and the ornamentations of Northern France. The untrained imitation of Norman designs in the portal of the Tower of Kildare is an evidence of a further advance in this direction. In the later buildings of Clonmacnoise, Killaloe, Freshford, etc., the Norman elements became more and more important, and in the Chapel of Cormac at Cashel, consecrated in 1134, they were exclusively employed. Braided and intertwined ornaments, nevertheless, occasionally make their appearance in later times, as, for instance, in the Cathedral of Tuam, built between 1128 and 1150, the capitals of which present a combination of distorted masks and strap-work. Among the few peculiarities of the Romanic buildings in Ireland may be mentioned a straight termination with a one-aisled plan, and the two-storied choir, which was arranged in a manner similar to that observable on the northern coast of Spain.

SCANDINAVIA.

The islands and peninsulas upon the north of the Baltic were inferior in artistic interest even to Great Britain. Although this was the native land of the Normans, who had occupied Northern France and conquered England, it exhibits no trace of the beginnings of Norman art.* On the contrary, an influence far more important than that derived from Scandinavia was introduced into this country from Normandy and England. The greater part of its civilization was, however, of German origin.

* J. C. C. Dahl, *Denkmäler einer sehr ausgebildeten Holzbaukunst der frühesten Jahrhunderte in den inneren Landschaften Norwegens*. Dresden, 1837.—A. v. Minutoli, *Der Dom zu Drontheim und die mittelalterliche christliche Baukunst der skandinavischen Normannen*. Berlin, 1853.—Nicolaussen, *Mindesmerker of middelalderens Kunst in Norge*. Christiania, 1855.—P. Lehfeldt, *Die Holzbaukunst*. Berlin, 1880.

The Danes and Norwegians,—the two nations most closely allied in ethnographical and historical respects,—were Christianized at about the same time, the former under King Harold Bluetooth, A.D. 936 to 986, the latter under Olaf I., Trygvason, A.D. 995 to 1000. Before this period both Denmark and Norway were altogether without architectural monuments, in the true sense of the word. Palisades served as fortifications instead of walls, and even the palaces of the kings were roughly built of squared logs, the interstices between which were stuffed with moss, the whole structure being coated with tar. Colored mats formed the chief adornments of the interior. It may nevertheless be assumed that certain details, such as the jambs and panels of doors, gables and gargoyles, and especially the furniture, were ornamented with painted carvings and with sheets of metal, as is stated to have been the case with the ships of Sweyn Forkbeard, King of the Danes, A.D. 986 to 1013. These decorations, like those of the later wooden buildings, doubtless consisted of monstrous and distorted images, and of fantastic intertwined patterns.

The earliest churches were constructed of wood. This was the case with all those founded by King Harold Bluetooth, among which the Church of the Holy Trinity at Roeskild seems to have been the most important. Even the churches erected by Canute the Great, A.D. 1013 to 1035, in Denmark and England, were of this material. In Norway timbered constructions have continued to be employed for the most important edifices, and more than fifty ancient churches built of wood are still standing. These were erected at very different periods; the age of only one can be certainly determined, the Church of Tind or Atro in Upper Telemarken, which, according to its Runic inscriptions, dates to the years between 1180 and 1190. The style of its ornamentation, however, proves that this church is by no means the oldest among those known. Judging from the primitive and unconventionalized character of the wood carvings, the Church of Urnes (*Fig. 242*) and that of Borgund (*Fig. 243*), both in the province of Sørge, are older than that of Tind, while that of Hitterdal in Lower Telemarken may perhaps be ascribed to the same age.

These structures are mostly small, and closely resemble each

other in architectural treatment. The rectangular body of the church is divided by columns of wood, which are carried around the four sides and support a simple framework of timbers. The aisles thus formed at the sides and ends are roofed on a lower level than is the nave; the choir, at times terminated by an apse, is of corresponding height. In many cases the entire building is sur-

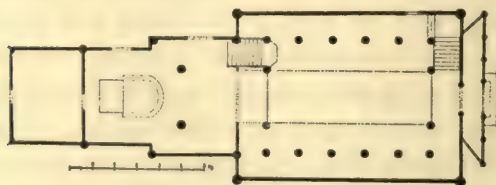


Fig. 242.—Plan and View of the Church of Urnes.

rounded by a low and narrow corridor like a cloister (Lof), the lean-to roof of which is supported upon ranges of diminutive columns. This passage is interrupted on the front and sides by projecting portals. The walls of the church, formed of upright boards and beams, are thus hidden from view and protected from the influences of the weather. The arrangement of the roofs is pyramidal, the lean-to roof of the aisles and choir rising above that of the sur-

rounding passage, while the steep saddle-roof of the nave is surmounted by a small ridge turret, serving as a belfry. The narrow wall-surfaces between these roofs are covered, like them, with shin-

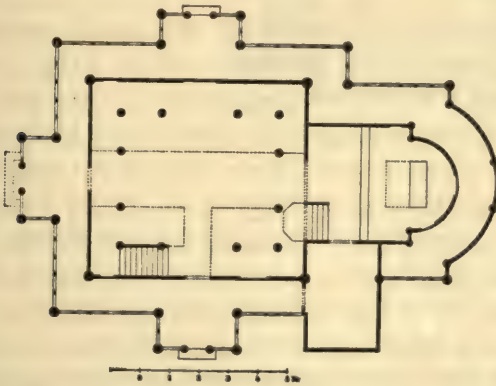


Fig. 243.—Plan and View of the Church of Borgund.

gles. The interior is less attractive. The windows are few and small of size, and the tall beams which serve as supports are without memberment and organic connection; the roof timberings and ceiling panels are not decorated, carvings in relief, like those of

the portals, being restricted in the interior to the cubical capitals. In the churches of Urnes and Borgund the boarded ceilings, which are similar in form to barrel-vaults, or, to speak more correctly, to the plankings of a ship, are decorated in color but not carved; the same is the case with the horizontal ceiling of boards in the church at Hitterdal.

The carvings are of interwoven patterns, resembling those of Ireland, but the imitation of the braided work is here less direct. The straps differ in thickness, the larger parts often taking the forms of fantastic animals; they are not arranged according to any conventional system, but solely with reference to the panels which they are required to fill. This character appears in the carvings of the Church of Urnes. In the course of time the designs become more methodical, of a lower relief, and less original; the ends take the form of leaves, thus resembling the Romanic foliage of Germany. The later stage of development is exemplified by the before-mentioned Church of Tind. Conventionalized designs of this kind continued to be employed with but few alterations in the carvings of Scandinavia, and can still be traced in the wooden utensils of that country.

The oldest works of masonry in the Danish countries are the Cathedral of Roskilde in Zealand, built by King Canute IV. between 1080 and 1086, and that begun by the same king in the town of Lund, which now belongs to Sweden. Both have been much altered by subsequent reconstructions, that of the original Cathedral of Lund having taken place towards the end of the twelfth century, while the rebuilding of Roskilde was two hundred years later. Both distinctly display the characteristics of German models. The former seems to have been designed with reference to the introduction of vaulted ceilings; the Romanic influences are evident in the alternation of light square supports and piers with engaged columns, in the form of the capitals, in the grouped windows, and, upon the exterior, in the arched corbel-table and the dwarf gallery of the apse. The latter is imitated from the Cathedral of Ratzeburg, being thus indirectly influenced by the Cathedral of Brunswick. German models seem to have been followed in the other Romanic edifices of Denmark, as at Ribe, Viborg, and Aarhus; the alter-

nate system of Hildesheim, with two columns between the piers, is introduced in the Church of Westervick.

Even in buildings of different arrangement no foreign influences are perceptible except those of Germany. The cruciform Byzantine plan of the Church of Callundborg in Zealand, built towards the end of the twelfth century, can hardly be connected with the service of the Danish body-guard of mercenaries in Constantinople, as is proved by the many towers of the building: one of rectangular plan surmounting the intersection of transept and nave, and four eight-sided towers above the polygonal end walls of the transepts. The simple forms of the capital, and other peculiarities of the brick construction, rather resemble the architectural details of the North German Lowlands. The same is the case with the round churches of Denmark, the small edifice of Thorsaeger, and that upon the island of Bornholm, which is like the crypt of St. Michael of Fulda in the introduction of a central pier as the support of the vaults. To this class belong also the round buildings of Greenland, two of



Fig. 244.—Old Stone Mill, Newport, Rhode Island.

which have been preserved in Igalikko and Kakortok. Perhaps we may add to this list the circular structure known as the Old Stone Mill near Newport, Rhode Island (*Fig. 244*), which is said to be the most important monument of an occupation of America antedating the age of Columbus. It is far from certain that this building was connected with the mission of Bishop Eric to Vineland in the year 1121. The drum is supported upon eight columns connected by arches, and may have been surrounded by a concentric passage, of the outer wall of which, however, there are no remains. There is no evidence of its style, as it is wholly without ornamental details. Even the bases and capitals are of a simple rectangular profile.

The older stone buildings of Norway date to the reign of Harold Hardrada, A. D. 1047 to 1066, and that of Olaf the Peaceful, A. D. 1066 to 1093. The most ancient churches which have been preserved, whether of one-aisled or basilical plan, resemble the structures of Normandy rather than those of Germany. This was the case with the basilicas of Aker near Christiania, of Granevolden in Hadeland, and of Stavanger, the ribbed capitals and chevrons of which are similar in design to those of Norman and English portals. In view of the extended commerce of Norway, it is not strange that constructive methods should occasionally have been derived from even more remote countries. Thus the barrel-vaults and bisected forms of the church at Ringsaker in Hedemarken would be entirely inexplicable without the assumption of French influences.

As, with the exception of buildings of wood, Norway affords but scanty materials for our consideration during this epoch, it is not strange that the monuments of Sweden should be of even less importance, this country not having been Christianized until after the middle of the twelfth century, and consequently possessing no churches of an earlier date. The later one-aisled structures or basilicas, with the clerestory walls supported upon piers, such as those of Sigtuna on the lake of Maelar, and Alfuaster in East Gothland, are too rude and wanting in ornamentation to be treated as works of art. The first important edifice of Sweden, the Church of Warnheim, was built towards the end of the twelfth century by Cistercian immigrants, and is consequently without interest in this connection. It may be assumed, however, that as this structure displays the forms of the German Romanic style, Sweden was in general more influenced by the artistic culture of Germany than by that of Normandy. The commerce of the country had been chiefly directed towards the coasts of the Baltic Ocean, and it is natural that the elements of civilization should have been introduced from this direction. Thus Sweden was brought into closer relations with Denmark than was Norway, notwithstanding the political union of the two latter countries.



Fig. 245.—Fragment of a Mosaic Pavement in the Crypt of St. Gereon in Cologne.

PAINTING OF THE ROMANIC EPOCH.

THROUGHOUT the Middle Ages architecture was of greater importance than the other arts, and this was especially the case during the Romanic epoch. New constructive ideas, new decorative forms, and all the elements of a new architectural style, of great variety and capability of development, had sprung from the combination of the early Christian and Byzantine methods of building. Paintings and sculptures, on the other hand, remained of subordinate importance. They were seldom employed otherwise than as adjuncts to the works of architecture, and did not attain to an independent position until a later period. While the art of building in almost all Christian countries was, more than any other phase of intellectual activity, distinctly representative of national peculiarities, painting and sculpture remained in the trammels of a monotonous international tradition.

Methods of building and decorative details were occasionally transferred from one country to another,—Lombardic features appearing in France and on the banks of the Rhine; those of Southern France in Spain, those of Normandy in England. But the truly

national styles, such as those of Saxony, the Rhenish countries, Lombardy, Sicily, the Provence, Burgundy, and Normandy, were nevertheless more readily distinguishable in the works of architecture than in those of sculpture and painting, the latter being more universally distributed than the buildings, and less dependent upon the conditions of climate and materials, of provincial ideas and of local traditions. The exchange of sculptures and paintings between one country and another has at all periods been readily effected. Thus Irish methods of illumination were transferred to the Lake of Constance, and the Byzantine manner of painting was introduced at Monte Casino and at the court of Saxony through the importation of manuscripts and enamels, and through the travels of the artists themselves.

There was hence an even greater continuity of the ancient artistic methods in these branches than in architecture. The art of the Byzantines and that of the early Christians, as revived during the Carolingian epoch, were exclusively employed long after the tenth century. Neither the artists of the courts nor those of the cloisters attempted to introduce new forms. In like manner as the manuscripts were copied, the illustrations contained in them were exactly imitated. The masterpieces of Byzantine and Carolingian illuminators remained the standards of taste, and it was rarely that the painters of later generations endeavored, where models were lacking, to study from nature itself. In these few cases the energetic attempt to convey a meaning makes up for the extreme awkwardness of the new features: the violent action, almost amounting to a disjointed caricature, leaving no doubt as to the intention of the artist. Correctness of form was rare, beauty almost unknown. The chief attention was devoted to the conventional treatment of the pigments, or of the stone, wood, ivory, or metal from which the work was carved. It is characteristic of the artistic conceptions of this period that, in contrast to the painters' book of Mount Athos, which chiefly deals with the composition and the subjects represented, the Northern writings upon art relate solely to technical methods. This is the case with the fragment of the Anonymous Bernensis of the ninth century, edited by H. Hagen, and especially with Theophilus, *Schedula Diversarum Artium*, edited by A. Ilg,

the oldest manuscript of which, now in Wolfenbuettel, is referable to the twelfth century.

Throughout the Romanic period Germany led the way in painting as well as in architecture. The missionaries of St. Gall, Fulda, and Corvey carried forward the work begun under the Carolingians, and in like manner the pioneers of the civilization of the Middle Ages, the brethren of the rapidly increasing convents, developed an activity of considerable extent and success. The power and also the pleasure of original artistic creation was increased by the assurance of furthering pious ends. The experience of Charlemagne had already proved the artistic, and especially the pictorial ornamentation of places of worship to be one of the most important means of promoting Occidental civilization.

As early as the ninth century wall-paintings were very commonly introduced into the churches, often in extended series of pictures, such as those described in detail by Alcuin, Bernowin, Ermoldus, Nigellus, Walafrid Strabo, and other contemporary writers. After the time of Charlemagne the slow and difficult art of mosaic inlaying was but little practised, such pavements as those of Hildesheim and Cologne being exceptional. Little is known concerning the mosaic pavement of Bernward, which was destroyed in later times, but it may perhaps be assumed that the rough cement floor of dark color in the Cathedral of Hildesheim, dating to 1122, was similar to it in conventional treatment. The remnants of pavement in the crypt of St. Gereon in Cologne (*Fig. 245*) are decidedly inferior to the ornamental work executed in various parts of Italy at this period. Mural paintings were more extensively employed, but were of extreme simplicity, consisting chiefly of drawings in outline, the local tones of which were applied upon the dry wall with but little attempt at modelling.

As these mural paintings seem never to have been restored, and are generally of such hasty and superficial execution that the original designers cannot have been long employed upon them, it is not to be assumed that every cloister had its own staff of painters for this kind of work, as had been the case in the execution of miniatures. It is probable that these methods were cultivated only in a small number of convents, the artists who had been trained in these

establishments being called as journeymen to other places. Schools of painting of this kind seem to have existed in Saxony and in some of the Rhenish provinces. The only one, however, of which we have definite historical information is that upon the Island of Reichenau, in the Lake of Constance (Augia Dives), where, in the ninth and tenth centuries, several stone churches and convents had been erected in place of the wooden church and hermitage founded in the eighth century by St. Pirminius. Even St. Gall, which, after the ninth century, was celebrated for its school of illuminators, employed artists from Reichenau to execute the mural decorations in the house of the abbot. From this it may be argued that St. Gall itself was not provided with painters skilled in this branch of art. Two of the artists of Reichenau, as will later appear, were, towards the end of the tenth century, engaged upon the magnificent Codex of Treves; it is probable also that members of this fraternity were at about this time employed upon the decorations of the Church of Petershausen near Constance. St. George in Oberzell, upon the Island of Reichenau itself, was rebuilt and enlarged between 984 and 990, and the paintings upon its interior walls* probably date to this period. These are the oldest monumental paintings of this age which have been preserved in Germany.

It is evident from the total lack of architectural memberment in the walls that the entire nave was built with reference to mural decoration. The spandrels of the arcades are decorated with medallion portraits of abbots and prophets, originally six upon each side. Above these is a broad frieze with representations of the Miracles of Christ: upon the southern wall the Awakening of Lazarus (*Fig. 246*), of the Daughter of Jairus, and of the Son of the Widow of Nain, the Healing of the Woman with the issue of blood, and the Cleansing of the Leper; upon the northern, the Casting out of the Unclean spirit, the Stilling of the Tempest, the Healing of the Man with the dropsy, and of the Man born blind. The narrow vertical bands of ornament which separate the pictures exhibit a com-

* F. X. Kraus, *Die Wandgemälde in der S. Georgskirche zu Oberzell auf der Reichenau*. Freiburg, 1884.—A. Springer, *Die deutsche Kunst im 10. Jahrhundert*. Westdeutsche Zeitschrift für Geschichte und Kunst. III. Trier, 1884.

bination of the Carolingian and Romanic styles, while the horizontal borders of frets drawn in perspective have a striking resemblance to the patterns which occur in antique pavements,* in Etruscan wall paintings,† and in the Christian friezes of France and Italy, such as those of the Baptistry of Poitiers, St. Sernin in Toulouse, St. Victor at Fontvielle near Arles, and S. Maria la Libera at Foroclaudio. The spaces between the windows are occupied by single figures of the apostles. There is no proof that these paintings were executed al fresco. The colors are bright and well chosen, being quite free from the brown and olive tints of the Byzan-



Fig. 246.—The Awakening of Lazarus. Wall Painting at Oberzell.

tines; neither do the forms or the composition betray the influence of Byzantium. There are no traces of ceremonial rigidity and conventionalism, the action being full of life, and the draperies natural. Early Christian and particularly Carolingian reminiscences may be recognized, but the awkward laboriousness of those works has been in great measure overcome. A certain technical skill is evident, together with a facile and careless execution.

* Such, for instance, as that shown in Zahn, Pompeii, III. 16.

† Compare Mon. d. Inst. d. C. A., VI.

The representation of the Last Judgment (*Fig. 247*) is but little more recent. Its similarity to the mosaics of the early Christian basilicas is probably due to the subject, as well as to the smaller number of figures. Unfortunately, the effect of the whole is impaired by its bad state of preservation, especially by the flesh tints having become black through a decomposition of the red lead.

The mural paintings in Oberzell are the more important as they are the only ones worthy of mention, remaining in Germany from the period to which they belong. We have especially to regret



Fig. 247.—The Last Judgment. Wall Painting at Oberzell.

the loss of the battle-piece which was executed by order of King Henry I., in the upper hall of his palace at Merseburg, in commemoration of the battle against the Hungarians near Riet on the Unstrut, in the year 933. It may, however, be assumed that this work was similar in character to the historical wall painting of Charlemagne in the imperial palace at Ingelheim, even as these had followed the style of the decorations in Queen Theodelinde's palace at Monza. The half-figures of saints in the ground-floor of the tower of Nonnberg in Salzburg, dating to the eleventh century, are more Byzantine in conception and form than those of Reichenau;

this is probably due not only to the nature of the subject, but also to the intimate relations of Salzburg with Venetian culture.

Better examples than those of the mural painting of the tenth and eleventh centuries at Oberzell, are afforded for the twelfth by the decorations of the Lower Church of Schwarzhheindorf, near Bonn, and by the painting of the ceiling of the chapter-house in the Abbey of Brauweiler near Cologne.* Both of these may perhaps be referred to a school of Cologne artists. Even in regard to the subject, the series of pictures in Schwarzhheindorf, dating to about the year 1150, is of great importance. The representation of Christ in the act of teaching, surrounded by two groups of



Fig. 248.—Painting of the Apse of the Lower Church of Schwarzhheindorf.

apostles, in the conch of the chief apse (*Fig. 248*), are of a devout and even ecstatic effect, heightened as it is by scenes of the vision of Ezekiel, which ornament the compartments of the vaults of the choir, and of the intersection of transept and nave. To this were added, in the three apses of the transept and western end, representations of the life of Christ: the driving out of the sellers and buyers from the Temple, the Transfiguration, and the Crucifixion, with Pilate washing his hands. In technical respects, and especially in the employment of a blue ground, these paintings

* E. aus'm Weerth, *Wandmalereien des Mittelalters in den Rheinlanden*. Leipzig. Without date.

are similar to those of Oberzell. In composition, however, as well as in grouping and in artistic feeling, they are far superior. The drapery, notwithstanding some conventionalism, is more tastefully disposed, and clearly displays the study of the early Christian works of the West. The twenty-four paintings upon the vaults of the hall of the chapter-house in Brauweiler, illustrating scenes from the Old and New Testaments and the lives of the saints, exhibit greater freedom, but less power of expression, while a certain weakness in the composition betrays a want of feeling for style. The paintings in the apse of the choir in the Minster of St. Patroclus at Soest, dating to 1166, contain only single figures: in the conch, Christ in a glory, with the symbols of the Evangelists and six saints, on the wall of the apse, four figures of kings. Similar in character are the decorations in the choir of St. Kilian at Luegde, near Pymont. The paintings in the western transept of the Cathedral at Muenster, representing the people of Friesland bringing votive offerings to their patron St. Paul, show a finer composition, but less understanding of form.

The extensive mural paintings in the choir and transept of the Cathedral of Brunswick are the most important examples of this art referable to the beginning of the thirteenth century, as well as the most complete series of mediæval wall decorations. The upper part of the building, it is true, belongs to the transitional period, and the paintings also show something of the grace and attenuation of Gothic forms. Still, it is to be observed that this method of covering the entire wall with paintings was practised in Germany only during the Romanic epoch, and the scenes themselves betray no traces of Gothic architectural details. This is also the case with the pictures in the Choir of the Nuns in the Cathedral of Gurk in Carinthia, which, if we may judge from the portraits of the founders under the throne of the Virgin, can hardly have been painted before the middle of the thirteenth century.

It may be assumed that mural paintings were prevalent, especially in the choir, not only during the period when the walls were without architectural memberment, but also in later buildings of simpler plan. Traces of painting have been found not alone in the larger churches, as in the Upper Minster at Ratisbon, and at

Lambach in Austria, but even in the smallest village churches of Germany. They are particularly frequent in the buildings of Westphalia, as at Methler, Ohle, Werdohl, Plettenberg, Huesten, Heggen, Froendenberg, Opherdicke, Castrop, Ahlen, and Sendenburg, but they occur also in other places, as, for instance, at Perschen and Keferloh in Bavaria.

Even fewer of the paintings upon the panels of the horizontal wooden ceilings in the basilicas have been preserved. As the material of these ceilings was less durable than that of the walls it was necessary to renew them more frequently, and in later times they



Fig. 249.—Adam and Eve. Painting upon the Ceiling of St. Michael in Hildesheim.

were generally replaced by vaulted constructions. The most important and best preserved work of the kind, the ceiling of St. Michael in Hildesheim, is of comparatively recent date, having been painted in 1186. The pictures upon it represent the genealogy of Christ, and are so disposed that the central panels are filled by the principal groups: Adam and Eve under the Tree of Knowledge (*Fig. 249*), Jesse sleeping and the four kings of his line, and Christ with the Virgin. In the smaller spaces upon each side are representations of the Evangelists, of the Rivers of Paradise, etc., while the whole is surrounded by medallions containing breast-pieces of the Holy

companionship. It cannot be denied that these paintings, in composition and drawing, are decidedly superior to the conventional works of Byzantine art, and at times display a truth to nature, and even a beauty of form, equally removed from the mummy-like dryness and stiffness of the style of the Eastern empire and from the rude clumsiness of the Carolingian methods. The greatest advance is perceptible in the ornamental parts of the composition, the characteristics of which are referable rather to the miniature paintings of this age than to any architectural precedents, and, contrary to the somewhat crude attempts at Oberzell, are of more tasteful Romanic designs: the conventionalized vines and foliage helping over many of the difficulties, such as those presented to the artist by trees and landscape backgrounds. A like artistic importance could hardly have been expected in the paintings upon the ceiling in the Church at Zillis in Graubunden, of about the same period, in view of their subordinate character and the remoteness of the place in which they were executed. The one hundred and fifty-three representations, upon small panels, are rude and awkward, both in the figures and in the ornamental details.

Paintings upon detached panels,* intended for any other purpose than decorations to be seen at a distance, were rare in Germany before the thirteenth century. The earliest of those known were executed for antependiums, or panels before altar-tables; these furnishings, however, were more frequently of stone or metal, or of linen or woollen stuffs, either embroidered or woven. The antependium painted upon wood, in the Convent of St. Walpurgis at Soest, now in the Provincial Museum at Muenster, may perhaps be referred to the latter part of the twelfth century. The conventional type of the figures upon gold ground betrays the influence of beaten metal-work. The embarrassment which always attends first experiments with any new and unaccustomed technical process is plainly perceptible, still, the heads and the hands are by no means wanting in beauty of form (*Fig. 250*). The painted antependium at Luene, near Lueneburg, is of a similar style.

* H. v. Zuydewyk, *Die älteste Tafelmalerei Westphalens*. Münster, 1882.

Of higher artistic character is the older of the two altar-pieces from the Wiesenkirche at Soest, now in the Berlin Museum (No. 1216a). This work was not executed before the thirteenth century, and is the earliest remaining example of the painted altars which in later times became of such importance. It is a triptych, the side wings being immovable, is painted on parchment mounted upon oak boards, and has a gold background. The middle panel represents the crucifixion: on the left, Christ before Caiaphas, on the right, the two Marys at the Sepulchre. Traits are here met with similar to those which appear a century and a half later in the more developed panel painting of Cologne and Flanders. The rudeness peculiar to the illustrations of similar subjects in the manuscripts, from the Carolingian period to the Codex Egberti, has been in great measure overcome. Instead of the meagre composition which is characteristic of monumental paintings even as recent as those of Schwarzhof and Brauweiler, this work exhibits decidedly



Fig. 250.—The Virgin. Antependium of St. Walpurgis in Soest, now in the Museum in Muenster.

more feeling for perspective and a finer effect of grouping. But the technical execution is still too faulty, the knowledge of form and action too uncertain, the feeling for nature too undeveloped, to warrant the assertion that the characteristic limitations of the previous period had been overcome. The other triptych of the same church (Fig. 251), also in the Berlin Museum (No. 1216b), is of a later date and of less importance. In the centre is the Trinity, upon the right wing the Virgin, upon the left St. John, all with gold backgrounds. The slender forms and the angular superabundant folds of the fluttering draperies indicate the approach of a new era, the conceptions of which differ vastly from those of the severe and unpretentious

designer of the antependium and of the before-mentioned altar-piece.

The glass painting of the Romanic epoch deserves attention, rather as a forerunner of the future greatness of this art than because of any intrinsic merit. Colored decorations of this kind appear to be as old as the employment of glass for windows. The first mention of the representation of figures in stained glass is that of the Church of St. Remy at Rheims, into the windows of which Bishop Adalbero, a German, and formerly canon of Metz, introduced, between 968 and 989, various legendary scenes.* In Germany we



Fig. 251. —Altar-piece from the Wiesenkirche in Soest, now in the Museum of Berlin.

find the first notice of this art in a letter of Gozbert, Abbot of Tegernsee, A.D. 983 to 1001, to Count Arnold, patron of the convent; but the expression "many colored panes" leaves us in doubt as to whether these decorations were of figures or merely geometrical patterns. The colored window draperies, embroidered or woven, which seem to have been common before the time of glazing, were of great influence in the introduction of glass painting. This influence may have been supplemented by that of the previous works in

* Pertz, Monumenta, V., page 613.

mosaic and enamel, the characteristics of the former appearing in the putting together of small pieces of stained glass, and of the latter in the handling of the colors. The technical treatment long continued very simple, the outlines being formed by the leadings, and the details, without regard to local color, being indicated by the blackish-brown lines of a flux of oxide of copper, known as black solder.

The oldest remaining examples are the five windows with figures of the prophets in the Cathedral of Augsburg, which were probably executed soon after the middle of the eleventh century (*Fig. 252*). They are of an exceedingly rude style, unmistakably influenced by the designs of Byzantine tapestry. The glass paintings in the Chapel of St. Sebastian, of Christ, of St. Peter and St. Paul, at Neuweiler in Alsace, are similar in character but somewhat later. The specimens of this art in the Old Minster at Strasburg, and the figures of princes in the chapter-hall of the Cistercian Convent of Heiligenkreuz, though a century later, and certainly of finer and more tasteful execution, still show no change in style.

A notable advance, however, appears in Cologne and its vicinity, doubtless in connection with the improvement made in mural painting, this progress being, perhaps, somewhat due to the influence of France. The glass paintings in the niches of the choir in St. Patroclus at Soest are unfortunately in so bad a state of preservation that no satisfactory judgment can be passed upon them. The magnificent windows of St. Cunibert in Cologne, of the Church of Legden in Westphalia, and of St. Maternianus at Buecken in Hanover (*Fig. 253*), all date from the transitional period,—the middle of the thirteenth century. In composition and technical treatment they are related equally to that school which executed the windows in the Church of St. Denis, built by the abbot Suger, and to the mural



Fig. 252.—Window of Stained Glass in the Cathedral of Augsburg.

painting in the Church of St. Michael at Hildesheim. Painting in general followed but slowly the advances made in architecture, and that upon glass was especially antiquated in style. Like the windows of stained glass in the first Gothic building of Suger, the paintings of the transitional epoch in Germany seldom exhibit pointed forms in the architectural details.

The art of weaving and embroidering figures was, at least in Germany, less frequently practised for wall tapestries than for litur-



Fig. 253.—Glass Painting from the Middle Window of the Choir of the Church of St. Maternianus, Buecken.

gic garments. The earliest and best of such works were Byzantine or Oriental, and were mostly imported from Palermo. The antependiums, choir tapestries or dorsels, and the hangings of the altar were, however, often executed by native monks and nuns, or even by profane hands. Among the few German works of this kind which have been preserved, the most important are the dorsels from Quedlinburg, with representations of the nuptials of Philologia and Mercury, according to the allegory of Marcius Capella, and dating to the end of the twelfth century (*Fig. 254*). They may have been

worked for some unconsecrated hall, such as the *Caminatas*, which were common in the palaces built of wood as well as those of stone.

The chief information in regard to Romanic painting in Germany is to be obtained from the illuminated manuscripts.* These were quite as universal as mural decorations, and, owing to the nature of their materials, far more of them have been preserved. The art of miniature painting was practised exclusively by the monks, as, indeed, all the culture of the Romanic epoch in Germany was maintained by the clergy. When persons of distinction, either priestly



Fig. 254.—Woven Dorsel from Quedlinburg.

or secular, appear in the inscriptions, they are generally to be considered as patrons rather than as artists, and the word "*fecit*" in the signature is in such cases to be understood as "*fieri fecit*." Even the artistic activity of Bernward of Hildesheim, after he became bishop, was more that of a *mæcenas* and director than that of a practical designer.

The Ottos had continued the protection of the arts formerly

* A. Springer, *Die Psalterillustrationen im früheren Mittelalter, mit besonderer Rücksicht auf den Utrechtspsalter*. Abh. d. phil. hist. A. d. k. sächs. Ges. d. Wiss. Leipzig, 1880, VIII.—F. X. Kraus, *Die Miniaturen des Codex Egberti in der Stadtbibliothek zu Trier*. Freiburg, 1884.

afforded by the Carolingians, and their works of architecture, mural painting, and illuminated manuscripts are of much the same character as those of their predecessors. The connection of the imperial court of Germany with Rome was as favorable to classic studies at this epoch as it had been in that of Charlemagne, but these branches were not pursued with thoroughness and understanding until the time of the later Hohenstaufens. Still, the more remote courts and convents were raised above the state of barbarism into which they had fallen under the Carolingians. Byzantine culture was fostered by the marriage of Otto II. with Theophano, a princess of the Eastern empire, and by the betrothal of his aunt, the duchess Hedwig of Suabia, to the Byzantine prince Constantine; as also by the fact that an uncle of Otto, Bruno of Cologne, held a high office in the imperial government. All these influences, however, were but imperfectly understood, and with the growth of national independence and the awakening consciousness of individual modes of expression they could be only partially and superficially received. As a rule, native workmen were engaged; the employment of foreigners—such, for instance, as John the Italian by Otto III., for the decoration of the Minster of Aix-la-Chapelle—was exceptional.

In general it may be said that the illuminations, though inferior in artistic respects, display a greater independence than do the monumental paintings. The illustration of books offered new subjects for which there was no precedent, and also employment for self-taught artists with little regular training, or, indeed, dilettanti who followed their own instincts and conceptions. And this independence was expressed with more life and truthfulness in small, unpretentious works than in the elaborate codices for ecclesiastical and secular princes, in which it freed itself but slowly from technical constraint and the conventionalities of composition.

A partial retention of the Carolingian methods is evident in some of the most magnificent examples of the tenth century. The most important among the thirty or more codices of this period in the middle and lower Rhenish countries is that of Egbert in the Town Library of Treves.* This work, having been executed for

* K. Lamprecht, *Bonner Jahrbuch*. Heft LXXIV.

Archbishop Egbert of Treves, between 977 and 993, by two illuminators of Reichenau, Keraldus and Heribertus, suggests a comparison with the almost contemporaneous mural paintings of Reichenau. Contrasted with the trained skill of the latter works this manuscript betrays weakness, and an embarrassed hesitancy between conflicting principles of design. The dedicatory pages and pictures of the Evangelists show a closer connection with the old Byzantine style than do the single figures in the before-mentioned mural paintings; and there is far more of the Byzantine stiffness in the portrait of the archbishop than appears in the portraits of Charles the Bald in the Carolingian manuscripts, while the ornamentations of the border are a whimsical combination of Carolingian patterns. On the other hand, the representations from the gospels, with inferior skill in the drawing and composition, and less knowledge of form than the mural paintings, are yet more direct and dramatic, leaving no doubt as to the nature of the subject. For instance, the gestures of the Shepherds listening to the message of the Angel are very expressive; the scene of Christ among the Doctors in the Temple is exceedingly characteristic, as are also the illustrations of the Miracle at Cana, the Cleansing of the Leper, the affrighted Call to the sleeping Jesus in the Tempest, the Woman taken in Adultery, the Healing of the Blind (*Fig. 255*), the Washing of the Feet, the Denial of Peter, and the Descent from the Cross, etc.; an insufficient knowledge of form, however, made it impossible for the artist to master such compositions as the Murder of the Innocents.

A closer resemblance to the artistic methods of the Carolingian epoch is evident in the Gospel dating to the age of Otto II., now in the National Library of Paris (No. 8851), with the portraits of the first three Saxon kings and the Evangelists; in the Psalter of Cividale, dedicated in A. D. 981 to the archbishop Egbert of Treves by Ruodprecht, and removed to Cividale by the patriarch Bertold, the uncle of St. Elizabeth; and in the copy of the gospels, executed between 980 and 1018 for Bishop Henry of Wurzburg, and now in the University Library of that place (M. Perg. Theol., No. 661). In the Gospel now in Gotha, illuminated by order of Theophano during her regency for Otto III., A. D. 983 to 991, and removed by the latter to Echternach, the influence of Byzantium, which appears to-

gether with many naïve and life-like traits, is readily accounted for by the nationality of the queen (*Fig. 256*). The same considerations explain the introduction of Greek elements into the manuscripts of Otto III. and Henry II., at a time when they were almost entirely lacking in the works of the monks of Reichenau (compare the dedicatory illustration in the Gospel in the Library of Munich, Cim. 58).

The character of the art at the court of the last Saxon emperor is best represented by the school of illumination in Ratisbon, the works of which, especially those now in Munich and Bamberg, prove



Fig. 255.—The Healing of the Blind. Miniature of the Codex Egberti, Treves.

it to have been the most important of that period in Germany.* Ratisbon, the favorite residence of Henry II.,—already in possession of the Codex Aureus of Charles the Bald, one of the finest examples of Carolingian miniature painting,—was further enriched by receiving the books of Otto III. This led to the combination of Carolingian traditions with the Byzantine methods evident in the manuscripts of Otto III. The study of these models enabled the artists, after

* B. Riehl, *Zur Bayrischen Kunstgeschichte*. I.—Die ältesten Denkmale der Malerei. Stuttgart, 1885.

having acquired the necessary training, to undertake tasks of independent importance. This is the character not only of the works given by Henry II. to Bamberg, but of those executed for the imperial court of that age. The missal of Henry II., now in the Library of Munich (Cim. 60),—referable with certainty, from the designation of that ruler as "king," to the years between 1002 and 1014,—shows throughout, and especially in the initials, Carolingian motives, often in direct imitation of the before-mentioned models. But the strictness of the Byzantine method appears in place of the lax forms of the Carolingians, sharp precision instead of un-



Fig. 256.—The Healing of Cripples and Lepers. From the Codex of Echternach in Gotha.

certain drawing, and clear tones in place of dark and muddy colors. The second dedicatory picture, for instance, is an almost exact copy of that in the Codex Aureus of Charles the Bald, although in technical execution it is decidedly Byzantine. A high degree of artistic ability is also noticeable in independent compositions, as in the first dedicatory picture, which represents the king standing, receiving from Christ the crown, and from two angels the sword and the staff of the cross, while his arms are supported by St. Ulrich and St. Emmeram, the patron saints of Augsburg and Ratisbon (*Fig. 257*). Similar in character are the copies of the gospels in Munich (Cim. 57), and in Bamberg (A. 11, 46), and the

Codex of the Apocalypse, also in that city (A. 11, 42), all referable to Henry II. In the missal from Niedermuenster, now in Munich (Cim. 54), executed by order of the abbess Uota, under Henry II., Byzantine influences prevail, making themselves evident in a close



Fig. 257.—Dedicatory Illustration of the Missal of Henry II. Library of Munich.

imitation of the manuscripts of Otto III. They appear also in the Greek inscriptions, in the preference for geometrical arrangement, and especially in the conventional composition. Even here, however, traces of the style of the Codex Aureus of St. Emmeramus are plainly recognizable.

Ratisbon, where the art of illumination flourished in the eleventh and twelfth centuries, had in this branch an influence upon the neighboring bishoprics and convents, similar to that exercised in monumental painting by the before-mentioned schools of the Rhenish countries over their surroundings. As a matter of course, this influence was chiefly felt in Bamberg, the artistic importance of which place at this time is usually overrated, in so far, at least, as the introduction and imitation of models from Ratisbon are ignored. Certain it is that the so-called Gospel of St. Ulrich, now in Munich (Cim. 3), is not referable to St. Ulrich of Augsburg, A.D. 933 to 975, but to the illuminator Ulrich of Bamberg, who was in the employ of Bishop Gerhard of Wurzburg about the year 1125. Hence this work bears some relation to the painting in vogue at the court of Henry II. at Ratisbon. Abbot Ellinger of Tegernsee, afterwards of Niederaltaich, A.D. 1017 to 1056,—the favorite of Emperor Henry II. and his wife Cunigunda,—must have been trained in the school of Ratisbon, as is proved by the style of his works. The fine Evangelium, now in Munich (Cim. 31), can with certainty be ascribed to him, as can with much probability that of Niederaltaich (Munich, Cim. 163). The first-named Gospel and the Codex of Weiherstephan, now in Munich (Cod. Pict. 33), which latter is rather in the Carolingian manner, served as models for a series of copies, more or less direct, and very unequal in excellence. Among these the manuscript from Freising, now in Munich (Cod. Pict. 29), and an imitation of it from Reitenbuch (Cod. Pict. 57), are works of skilful hands; some, on the contrary, such as Cod. Pict. 28 and 33, are rude, and others, like Cod. Pict. 23 and 82, are absolutely barbarous,—their defects resulting from a too close dependence upon Carolingian models.

Compared with the productions of the school of Ratisbon, those of the Rhenish countries and of Saxony are of less importance. An exception is, however, to be made in favor of one special branch, namely, the architectural details of the framework and the background. Specimens of this class of work are to be found in the Gospel of St. Gereon at Cologne, now in Stuttgart (Cod. 21), and in the three codices of Bernward among the treasures of the Cathedral of Hildesheim. It is not surprising that a preference for such deco-

rations should have appeared in those regions where the architectural growth of the Romanic style had originated. As in Southern Germany, a broad handling in gouache pigments was here prevalent, the most important of these pictures being upon a gold ground or richly decorated with gold. The purple ground of the Carolingians gradually disappeared, and no instances of it are known later than the *Codex Aureus* of Henry III., originally in Speyer, now in the Escorial. Although they no longer bear the resemblance to diminutive mosaics, still many traits remain to remind us of their Byzantine origin. The relationship of the miniatures upon gold ground to the Byzantine enamels which served as models in the times of Otto II. and Otto III. is perceptible even at this period.

The case remained much the same even after the time of the Saxon emperors. Court painting under the Franconian dynasty had declined, not only in regard to the number of works produced, but in artistic excellence, as is proved by the Gospel of Henry IV., executed in Ratisbon, now in the Cathedral of Cracow. But a certain archaistic character was retained, notwithstanding the progress made in the art of illumination under the Hohenstaufens. Moreover, the centre of activity changed, the Rhenish countries and Saxony becoming more prominent. The Gospel of Bruchsal, now in the Library of Carlsruhe, is, without doubt, of Rhenish origin; its conventionalized figures are finely colored, and drawn with correctness, as well as with some feeling for beauty of form, corresponding to the advance made at that period in the other arts. Similar to this work is the *Evangeliarium* written by the monk Heriman of Helmershausen-on-the-Diemel, for Henry the Lion, now in the possession of the Duke of Cumberland, which in drawing and coloring is creditable both to the training and the taste of the artist, and is perhaps the most beautiful illuminated manuscript of the Romanic epoch. Also of Saxon origin are the Gospel from the Cathedral at Brunswick, now in the Museum of that city, the Psalter of the landgrave Herman of Thuringia, who died A. D. 1216, which is now in the possession of the King of Wurtemberg, and the Psalter of the same landgrave in the archives of the chapter-house in Cividale in Friuli. These works do, indeed, show a great improvement upon the awkward contortions and rigidity of the illuminations of the

eleventh century. Occasionally a certain grace of form and depth of expression suggest the transition to a new style and to the attenuated elegance of the Gothic period.

Court painting, however, never entirely overcame its retrospective and even archaistic character, while the simple works intended for the libraries of cloisters exhibit from the first a more independent method of illumination, interesting as the foretoken of a future development into wood-cut illustrations,—even as this style of painting had itself succeeded to older artistic traditions. Instances in point are those rude pen-drawings which are either slightly or not at all colored, and form a striking contrast to the works of the court painters. The oldest examples are the coarse outlines, sparingly tinted with India-ink, illustrating the Wessobrunn Prayer, dating to 815, now in the Library of Munich, and the miniatures of the versified Gospel of Otfried, in the Imperial Library of Vienna, written between 865 and 889. This manner of illustration seems to have been practised chiefly in Southern Germany, the centre of activity being St. Gall, at which place the school of design, as we have already seen, was of great importance in connection with the Irish and Carolingian illumination. The retention of the traditional and classic style, as it appears in the Antiphonarium of the tenth century in St. Gall (No. 390), was exceptional; the pen-drawings in black and red of this work have the appearance of old woodcuts (*Fig. 258*). Such simple designs require little technical training, and are, consequently, but in small degree dependent upon older artistic traditions. This emancipation is apparent in the hastily colored drawings of a Psalter of the tenth century in Stuttgart, in which the liveliness of action somewhat compensates for the ugliness of form and the want of skill in composition. Such traits obtained especially in those cases where no older type could be referred to for the subjects represented, as is shown by two codices executed in St. Gall about the year 1000, that of Lucanus (No. 863) and that of Prudentius (No. 135). The two pen-drawings of the former, only partially colored in yellow and red, show an arm of the sea with sirens and fishes, and the death of Pompey near Pelusium. The landscape backgrounds have the aspect of topographical plans, in which the figures are disposed at hap-hazard, in direct opposition to all the

principles of artistic grouping. The same lack of composition is evident in the illustrations of the *Psychomachia* of Prudentius, which are very incorrectly drawn in black, touched occasionally with red lines and a sepia wash. The *Psalter of Notker Labeo* (St. Gall, No. 21) belongs to this category because of its figure subjects executed with the same scanty means, and only here and there displaying greater originality and energy of character. The initials, drawn in black and red, render it, in calligraphic respects at



Fig. 258.—The Last Supper. Pen-drawing from the Antiphonarium of St. Gall.

least, the most interesting among the many Swiss codices dating to the eleventh and twelfth centuries.

The general revival of art, commencing under the Hohenstaufens, about the middle of the twelfth century, manifested itself also in this branch. The advance was best exemplified in the illustrated manuscript of Herrad von Landsperg, Abbess of Hohenburg in Alsace, which was burned during the bombardment of Strasburg in 1870. This compendium, completed after 1175, and intended for instruction in nunneries, contained a variety of religious, profane,

allegorical, historical, and even genre representations. These, together with considerable feeling for beauty of form, sometimes exhibited great freedom and originality of design, which, notwithstanding the incorrectness of drawing and want of skill in coloring, were of great promise (*Fig. 259*). In view of the progress evident in these works it could not fail to be recognized in which direction the greatest success was to be attained; hence it resulted, at least



Fig. 259.—Miniature from the *Hortus Deliciarum* of Herrad von Landsperg.

in the illuminations of Southern Germany, that outline drawing gained the ascendancy. Such illustrations were naturally of very unequal merit. For example, the pen-drawings in black and red from Zwiefalten, on the Suabian Alp, now in the Library of Stuttgart, whether slightly colored (Cod. 56–58) or untinted (Cod. 415), are full of life, although plainly the work of untrained hands. Still more spirited are the drawings in the “*Liet von der Maget*,” by

Werinher of Tegernsee (*Fig. 260*), and in the "Eneidt" of Heinrich von Veldeke, both of which are in the Library of Berlin. The action is especially forcible in the representations of profane subjects, and although the gestures, drawn directly from nature, are sometimes exaggerated and contorted, they are not the less striking in effect or the less comprehensible. That the execution was also liable to become hasty and careless is made evident by the numerous manuscripts of the productive monk Conrad of Scheyern, in Upper Bavaria, which are now in the library of Munich. He worked, how-



Fig. 260.—The Mothers of Bethlehem. From Werinher's "Liet von der Maget."

ever, in the first half of the thirteenth century, and consequently at the close of the period under consideration, by which time better specimens of art were circulated from convent to convent. It may have been in view of these that he added a few words in conclusion, excusing his carelessness by saying that he had been "overburdened with work and underpaid." In a similar manner another illuminator of this period, Hildebertus, in a codex now in the metropolitan chapter-house at Prague, expresses his discontent by an illustration at the end of the book, in which he represents himself as annoyed by a mouse which is stealing his food. The curse which he invokes

upon the animal is not without humor, and is an early instance of the drolleries which came so much in vogue in the Gothic epoch.

The conditions of painting in Italy were decidedly different from those in Germany. In the latter country a delight in pictorial representation continued to make itself felt subsequently to the Carolingian age; while its results were not always equal to the architectural creations, it at least endeavored to keep pace with the advances in that branch. In Italy, on the other hand, and especially in the former dominions of the Lombards, while architecture was not far behind that of Germany, painting was at a stand-still during the Carolingian epoch.* In view of the works in S. Nereo ed Achilleo, S. Cecilia, S. Maria della Navicella, and S. Prassede, it is impossible to speak of an artistic decline in the productions of the ninth century, especially when these are compared with the mosaics of S. Agnese, which had immediately preceded them. On the other hand, notwithstanding the patronage and many orders of Paschalis I., no progress is observable. The relation of the art of the ninth century to that of the sixth is most strikingly shown by comparing the mosaics in the spandrels and apse of SS. Cosma e Damiano with the almost exact copies which were made nearly three hundred years later, between 817 and 824, in S. Prassede. As the subject is almost entirely the same, the decline in the understanding of form and in the technical execution, the increased rigidity and the greater coarseness in drawing and in coloring is plainly apparent. The few productions of the tenth century are in technical respects still more deformed and barbarous. Some works dating to the middle of the eleventh century are slightly superior, such as the legends of saints in the crypt of S. Clemente, or the paintings of S. Elia of Nepi, executed, according to an inscription, by the brothers John and Stephen, together with Nicolaus Joannis,—but these are exceptional. The artists of this age appear, more than ever before, to have lost confidence in their own powers, and to have sought assistance by

* G. B. de Rossi, *Mosaici cristiani e saggi dei pavimenti delle Chiese di Roma anteriori al sec. XV.* Roma, 1872-1882.—D. Salazaro, *Studi sui Monumenti della Italia Meridionale dal IV. al XIII. secolo.* Napoli, 1871-1880.—The Same, *L'Arte Romana al Medio Evo.* Napoli, 1881-1884.

returning to the Byzantine models, which, after the time of Justinian, and especially through the intercourse of Ravenna with the East, had exercised a decided influence. This return required no break with the old traditions, and in geographical respects the means of connection were still at hand. While in Southern Italy the supremacy of the Eastern empire had continued up to the beginning of the period in question, the chief Italian ports, particularly Venice, had furthered the relations with Byzantium and its Asiatic and African dependencies.

When the abbot Desiderius was about to decorate his convent of Monte Casino, which had been rebuilt between 1066 and 1071, the magnitude of the undertaking, unusual at that time, must have clearly shown him the inefficiency of native workmen, especially those of Central Italy. His pupil Leo states distinctly, in the chronicle of the convent, that it was found necessary to call artists from abroad, as Italian art "had been lost for more than five hundred years," that is to say, since the decoration of SS. Cosma e Damiano. Whatever was movable in Constantinople was purchased and carried away, workers in mosaic were invited, and a school of art was instituted in Monte Casino by the patron abbot under the superintendence of Greek artisans. Hence it is not surprising that the remains of mural paintings in the Church of S. Angelo in Formis near Capua, founded by Desiderius, and in the Church of the Virgin at Foro Claudio near Sessa, dating at about the same period, are Byzantine in composition and form, as well as in technical respects. These peculiarities are even more observable in the mosaics which have been preserved from this epoch, namely, in the Virgin, St. John the Baptist, and St. John the Evangelist, in the Cathedral of Capua, and the half-figure of St. Matthew in the Cathedral of Salerno.

As the Mæcenas of Monte Casino occupied for a time the pontifical chair as Victor III., it was natural that the revival of art, which first appeared in the convent of the Benedictines, should also extend to Rome. The three large mosaics of the basilicas S. Clemente, S. Maria in Trastevere, and S. Maria Nuova, which may be considered as late blossoms of the decaying art of Rome, show fewer Byzantine characteristics than do the works of Southern Ita-

ly; still, this is readily explained by the existence in Rome of earlier Occidental models. The mosaics in St. Peter, St. Paul, S. Maria Maggiore, and SS. Cosma e Damiano must necessarily have been of good influence upon the debased Byzantine style of this late period. The same classic influences appear not only in the inlaid pavements, but also in the cosmatic and painted wall decorations, such, for instance, as those in the Capella del Martirologio in S. Paolo fuori le Mura and in S. Silvestro at Rome, which display, together with great rudeness of execution and a retention of the typical Byzantine



Fig. 261.—Temptation of St. Anthony. Wall Painting in S. Sepolcro, Barletta.

forms, certain reminiscences of the early Christian paintings of the Catacombs. This late appearance of ancient forms is occasionally due to a direct imitation of antiques; thus, in a *Temptation of St. Anthony* in S. Sepolcro at Barletta, dating to the twelfth century, a centaur is represented which, both in conception and in animal details, would be inexplicable without the assumption that the design of classic reliefs had here been followed (*Fig. 261*).

The mosaics of the twelfth century in Sicily were more simple, harmonious, and artistic, as well as superior in technical respects. After the age of Justinian Byzantine types continued to be em-

played without interruption not only during the continuance of the Eastern empire, but even after the Normans had wrested the supremacy from the Arabs. The two latter races essentially changed the architecture of the island, giving it an eclectic and fantastic character, but they could exert no influence over the art of painting, in which the Arabians did not advance beyond mere decoration, and the Normans had brought little with them. It was the easier to retain the old style, as the mosaic ornaments of Constantinople had chiefly been developed in connection with those architectural features which still remained Byzantine. The mosaic decorations of the Capella Palatina in Palermo,* built by King Roger II. between 1130 and 1154, as well as those in the Cathedral of Monreale,† referable to William II., A.D. 1166 to 1189, are of magnificent effect, and remarkable for their elegance of style and the depth and richness of color. With the variegated marble incrustations of the lower walls they form a more harmonious combination than was attained in the basilicas of Rome. Similar in character are the mosaics in the Martorana in Palermo, dating to 1143 (*Fig. 262*), and in the Cathedral of Cefalù, completed in 1148, all of which, in their strict ecclesiastical style, their Byzantine conventionality, and technical treatment, and especially in their general effect, contrast favorably with the works of the same period in Rome. Yet there are few traces of those innovations, resulting from subjective or objective individuality, and from a desire to find a mode of expression in accordance with the spirit of the time, which are seldom wanting in the before-mentioned works of Rome, or in even the rudest artistic efforts of the North.

That the art dependent upon Byzantium was capable of rejuvenation, at least to a certain degree, appears in the works of Venice, and still more in those of Florence. In the building of S. Marco Venice has given expression in the most monumental manner to the relations of its culture with that of Constantinople. The decoration, like the construction, is by no means of one character, for

* M. Amari, S. Cavallari, C. Meli e J. Carucci, *La Capella di S. Pietro nella Reggia di Palermo*, dip. da A. Terzi. Palermo, 1872 *sq.*

† D. B. Gravina, *Il Duomo di Monreale* ill. e riportato in tavole cromolitografiche. Palermo, 1859.

in this church the Byzantine style was retained far into the period of the Renaissance. But, aside from this, it is plainly evident that the artistic methods of the Eastern empire never did become as entirely naturalized in Venice as in Sicily, but were merely borrowed for temporary requirements, thus rendering more easy the introduction of compromises resulting from local peculiarities. This state of things, it is true, was not at first favorable to the development



Fig. 262.—Entrance of Christ into Jerusalem. Mosaic in the Capella Palatina, Palermo.

of an artistic style. The oldest works of S. Marco, those in the cathedrals of Murano and Torcello, and the mosaic of S. Cipriano upon the Island of Murano, dating to 1109, now in the Friedenskirche, near Potsdam, are by no means equal to those of Palermo.

The first dawn of independence in Italian art manifested itself even more decidedly in Tuscany than in Rome or in Venice. The earliest memorial of this progress is the mosaic executed in the tri-

buna of the Baptistery in Florence by the Franciscan monk Jacobus, A. D. 1225. However pleasing because of its novelty of composition and greater freedom in the draperies, this work still betrays the influences of Ravenna, and a direct dependency upon the productions of the age of Justinian. These characteristics may be traced for a hundred years and more, being evident in the works of Andrea Tafi and Gaddo Gaddi, in the same Baptistery, which are to be referred to the beginning of the fourteenth century. Even Giovanni Cimabue, in his mosaic in the apse of the Cathedral at Pisa, A. D. 1301 and 1302, deviates so little from the earlier traditions that, at least in this branch of art, he is to be considered rather as the last of the Byzantines than as a pioneer of a new style.

It is probable that textile industry, at that time highly developed, exercised itself in the manufacture of wall tapestries as well as of magnificent vestments. At all events, two distinct classes of work were produced in Palermo: rich stuffs embroidered with figures in the Byzantine manner, and Arabian fabrics, woven or embroidered, with ornamental patterns such as those typical animal forms from which heraldic devices were subsequently developed. To the former variety, intended chiefly for liturgical purposes, belong the coronation robes of Henry II., in the Cathedral of Bamberg, executed in the year 1014, and the casula of St. Stephen, in Stuhlweissenburg, dating to 1132; to the latter the coronation mantle of 1132 and the alba of 1181, in the Treasury at Vienna. These Arabian stuffs were widely dispersed throughout the North, being highly prized as coverings for cushions, pillows, and chairs, for dorsels, the caparisons of horses, etc.

In Italy painting upon panels was at that time almost entirely restricted to single figures, which were sometimes accompanied by smaller representations, composed in separate compartments and treated like miniatures. It is evident from the dilettanteism and weakness of everything of the kind that has been preserved, that such work was for the most part left to men of inferior training, the skilled artists being engaged upon more monumental tasks. This, however, does not exclude the prevalence of Byzantine traditions in panel painting. The most common subject was the crucifixion, the pictures of which, though of painful monotony, rival one

another in the expression of an ascetic ecstasy of suffering (*Fig. 263*). Such a caricature of the pathetic does still surpass the soulless rigidity of the Byzantine models, and has in it some elements hopeful for the future. But this expression of sentiment cannot compensate for the lack of all feeling for beauty. This is even the case with the works of Giunta Pisano,—celebrated in his time, between 1202 and 1255,—who, like all his contemporaries, continued, in technical respects not less than in the types of design, to be depen-



Fig. 263.—Crucifix in the Chapter-house of the Cathedral of Pistoja.

dent upon Byzantine models. Giovanni Cimabue was the first to aspire to higher ideals. Working towards the close of the thirteenth century, he succeeded in giving to his Byzantine Madonnas some expression of life and soul. The improvements which he introduced affected panel painting rather than mosaic. But however cramped by the limitations of the old traditions, and although in many respects a hesitating representative of the transitional period, Cimabue shows, in details and accessory figures, many characteristics of the Gothic epoch, in connection with which his work is to be considered.

The comparative inactivity of miniature painting is to be ascribed to the subordinate part taken in the culture of the time by the Italian clergy. During this entire period there were but few native productions which could be at all compared with those of Germany. The coarse pen-drawings of the Easter hymns, which, written upon scrolls, have received their name from the first word of the text, "*exultet*," are of the same uncertain forms and stiff and mechanical execution as are the illustrations to Donizo's laudatory poem on the Margravine Matilda, dating to 1115, now in the Library of the Vatican (No. 4922). In these works the Byzantine influence is scarcely perceptible, the chief characteristics being a helpless and careless dilettanteism. In the district of Milan Carolingian methods were long preserved, and led to successful results similar to those attained in Germany. These peculiarities appear in a fine Psalter of the eleventh century, now in the Library of Munich (Cod. Lat. 343), which is rendered particularly remarkable by the beautifully designed figures of its initials. Still, on the whole, the Italian miniatures of the eleventh and twelfth centuries, and the panel paintings of Giunta Pisano, gave but little promise of the great rise in the art of painting which was witnessed in Italy during the Quattrocento.

The Romanic art of France did not attain to the eminence of the Gothic, which, during subsequent ages, rendered that nation the most important in Europe. In some degree this was due to the curtailment of the former period by the early development of the transitional style. Noteworthy examples, it is true, are not wanting in all the branches of art which fall under our present consideration. But their scarcity is such that little activity can be inferred; their unequal merit proves the non-existence of any style characteristic of the country and the time, and their general rudeness and helplessness show the want of training. Even in the South, where architectural decoration, closely following antique models, had retained a considerable degree of excellence, the traditions of painting were lost, and it was only towards the close of the period that anything of importance was produced in this branch.

After the works of Germigny-des-Prés mosaics with figures were

not employed as wall decorations. Although a high artistic character is not expected in mosaic pavements, even the most modest requirements could not be satisfied by such a work as that preserved in the apse of the Church of Cruas (Ardèche), the interest of which is heightened by its unquestionable date, A. D. 1048 (*Fig. 264*). It might be thought that the hardness and ungainliness of the two figures of the prophets, Elijah and Enoch, could not be surpassed, were it not that the unnaturalness of the trees upon either side of the symbol of the cross is even more astonishing. The remains of other mosaics, as, for instance, those from the site of the Church



Fig. 264.—Mosaic Pavement in Cruas, Southern France.

De la Major at Marseilles, which has been demolished, from near the Cathedral of Valence, and from St. Trophime at Arles, are of greater artistic value, but probably of earlier date. That mosaics with figures were also customary in the north of France was proved by the pavement of St. Remy, in Rheims, of 1090, which has now disappeared. Together with biblical scenes, it contained representations of other subjects, such as the earth and sea, the seasons, months, the zodiac, and the arts, all of which showed classical reminiscences.

Scarcely any of the mural paintings of France date to the eleventh century, and but few are as old as the twelfth. The earliest

appear to be those of the Chapel of Liget (Indre et Loire), or the figures in the Baptistry of St. John at Poitiers, both very Byzantine in character. In the meander ornaments, drawn in perspective, of the latter church there may be traced a dependence upon classic mosaic models (see page 401). More extensive remains have been preserved in the Church of St. Savin (Département Vienne) in Poitou, where all the walls and vaults, including those of the crypt, were originally covered with paintings. The treatment of these works is very simple, being little more than an outline filled in with local colors, and entirely without modelling; but the composition and the forms already display an entire emancipation from Byzantine conventionality. The action is easy and expressive, and the forms are not without a certain charm, approaching the slender proportions of the Gothic. These characteristics are still more apparent in some remains of mural paintings in the Chapter-house of St. Trophime in Arles (*Fig. 265*), which are to be ascribed to the end of the twelfth or



Fig. 265.—Wall Painting from the Chapter-house of St. Trophime in Arles.

the beginning of the thirteenth century. These show great beauty of design and expression, and some attempt at modelling in the draperies, approaching, more closely, in technical respects, our standards in the art of painting than could the earlier works executed in simple outlines and flat tints.

The glass painting of the period, even when compared with these better productions, must be pronounced superior. As has al-

ready been said, the painting of figures upon glass seems to have been first practised in Rheims, and Theophilus,—a German monk who probably wrote in the twelfth century,—asserted the French at that time to be the cleverest masters in this art. Still, the before-mentioned windows in the Cathedral of Augsburg are fully fifty years older than the most ancient specimen of French painting upon glass known. This is a fragment representing the Ascension, which, taken from the Romanic Cathedral of Le Mans, built towards the close of the eleventh century, has been placed among the Gothic windows of the Chapel of the Virgin in the same town. In contrast to the Byzantine stiffness of the single figures in Augsburg, the group of the apostles at Le Mans displays a forcible though somewhat exaggerated action, which, combined with the successful blending of colors to a decorative effect similar to that attained in the tapestries of the period, compensates for the untrained design, the incorrectness of the forms, and the awkward positions of the limbs. A further stage of development is exemplified by the four windows of the Cathedral of Angers, dating to the years between 1125 and 1149, which contain, in medallions upon a blue ground, representations of the legends of the saints. These were the earliest of a number of similar paintings upon glass, among which may be mentioned those of the western front of the Cathedral of Chartres, and those of the choir of the Abbey Church of St. Denis. This combination of medallions with a background of tapestry patterns was prevalent in France until the end of the twelfth century, appearing in St. Père at Chartres and Ste. Trinité at Vendôme. It extended also to Germany, where it was adopted in the Collegiate Church of Buecken.

The tapestry hangings of the lower parts of the walls formed an important feature in mural decoration, especially after ornamental revetments and mosaics had gone out of fashion, simple painting proving unsatisfactory because of its want of durability, and because the short distance, from which the work was seen, rendered every defect visible. Though it is to be assumed that these hangings were chiefly in request for secular buildings, the comfort of which was greatly increased by the dorsals, similar considerations favored their adoption for the chancels of cathedrals and collegiate

churches. The tapestries were either woven or embroidered; those of the first class, when not imported, were copies of Byzantine or Moorish models, and generally of ornamental patterns; those of the latter, containing figures, were of greater freedom and originality of design, but extremely naïve and rude. Embroidery was particularly in vogue in the northern provinces of France, perhaps being influenced by England. The most important work of the kind, the Tapestry of Bayeux, now in the museum of that town, was executed soon after 1066. It is a linen cloth, sixty-three metres long and about half a metre broad, embroidered with colored threads, and represents the Conquest of England by William of Normandy. This simple chronicle in figures can hardly be called a work of art, the helplessness of the drawing being only equalled by the weakness of the composition. French tapestry weaving, which was actively pursued in the countries between the Garonne and the Loire, was superior in artistic respects; its patterns, however, being of the Sicilian style, were chiefly ornamental. As early as A.D. 985 Saumur was renowned for its tapestry weaving, and in 1025 and the following years the Count of Poitou exported the fabrics of his country to Italy.

Conditions were not favorable at this time for miniature painting in France. The art was almost entirely limited to pen-drawing of the rudest description, scantily touched with dull colors. The initials, which often occupied an entire page, and were executed chiefly after the Irish manner, in braided patterns, became predominant by being employed as the framework for representations of biblical scenes, which filled the inner fields of the round letters, or were placed like medallions in the upright ones. It is not definitely known whether France was dependent in this respect upon the district of Milan, which, from the beginning of the Middle Ages, had exercised great influence upon Gaul. Certain it is that the initials in the before-mentioned Psalter of Milan differ from those now under consideration, in that the figures of the former themselves constitute the letters, while in the latter they are merely added to them. When more extended compositions appear, they are much harder and ruder than those of German manuscripts. This is the case with the *Regula* of St. Benedict, written at St. Gilles, near Nîmes,

in 1129, now in the British Museum (Additional MS. 16,979). (*Fig. 266.*)

About the middle of the twelfth century an essential change took place in French illumination in regard to beauty of color, the decorative effect being heightened and the way prepared for the improvement in miniature painting which obtained during the Gothic period. This was, no doubt, in great measure attributable to the influence of the paintings upon glass, which had been widely extended; for the brighter the effect attained by the gorgeous hues



Fig. 266.—St. Benedict giving the Rules of his Order to the Brothers. Miniature from a Codex of Southern France, now in the British Museum.

of painted windows, the more were the artists in other branches induced to give up the dull olive tones of the Byzantines, as well as the glaring and unmodulated combinations of color prevalent early in the Middle Ages, and to strive for greater brilliancy, even though approaching no nearer to nature. This dependence upon stained glass is apparent, as early as the close of the eleventh century, in a Bible in the Abbey of St. Martial at Limoges; its large initials, each covering an entire page, are filled with representations which admits of no doubt as to their being copied from glass paintings. Indications of realistic tendencies appear, but as yet rather in the

representations of animals than of human figures. The development of these characteristics, however, belongs to the following epoch.

Spain, in painting as in architecture, was dependent upon the art of France. The Roman and Visigothic culture had been the same upon both sides of the Pyrenees, and the geographical position, with the intercourse by land and water resulting therefrom, led to a certain similarity in these respects even after the bonds of political union had been severed. But the conquest of the better portion of the peninsula by the Mohammedans, and the hardships endured by



Fig. 267.—Miniature from the Codex Vigilanus in the Escorial.

the remaining provinces, did not permit the culture of Christian Spain to keep pace with that of Southern France; it was thus reduced to a subordinate position, the works of art being dependent upon those of the valley of the Garonne, and especially of Toulouse. The paintings of this period, of an inferior character in France, were naturally upon a still lower level in Spain. Indeed, in the Christian provinces there are no noteworthy remains, at least of monumental painting, which are to be ascribed to the time in question. The manuscripts, also, seem to have seldom advanced beyond simple ornamental initials of Irish character, as is seen, for example, in a Martyrologium dating to 919, now in the British Museum (Additional

MS. 15,600). When figures are attempted, as in the *Codex Vigilanus*, completed in 976, and containing lists of the Spanish councils and the *Cronicon Albeldense*, they are rude and naïve, entirely without facial expression, and provided in a childlike manner with many explanatory legends. This manuscript, from the Cloister of Albelda, is now preserved in the library of the Escorial (D. I, 2, Membr. F.). (*Fig.* 267). The same simple treatment, with even more numerous pictures, appears in the Commentary to the Apocalypse, dating to the year 1109 and now in the British Museum (Additional MS. 11,695).

England, before the Norman conquest, had no monumental painting of note, this being in great measure due to its architecture being limited to constructions of wood. On the other hand, the production of tapestries was encouraged by the employment of perishable building materials, the elaborate plaited and braided matings of Celtic art not continuing in use after the beginning of the Carolingian epoch. The mat was superseded by a woven tapestry, generally embroidered with figures. The manufacture of such fabrics assumed an importance so great that the *Opus Anglicanum*, throughout the Middle Ages, competed with the *Opus Græcum* of Sicily, although in technical and artistic respects it was certainly inferior.

Having freed itself from the Irish style of intertwined strap-work, the art of illumination became the more extensive and successful.* It appears that this advance took place during the reign of Alfred the Great, A. D. 871 to 901, a ruler whose position in regard to the civilization of the island was similar to that of Charlemagne in the continental empire. After his time works were produced in England which were scarcely inferior to those of Carolingian Germany. Noteworthy examples are the *Codex of King Edgar*, dating to 966, now in the British Museum (Cott. MS. Vesp. A. 8) (*Fig.* 268); and especially the beautiful *Benedictional of the Bishop Aetelwold of Winchester*, A. D. 963 to 984, now in the library of the Duke of

* J. O. Westwood, *Fac-similes of the Miniatures and Ornaments of Anglo-Saxon and Irish Manuscripts*. London, 1868.—E. A. Bond and E. M. Thompson, *The Paleographical Society. Fac-similes of Manuscripts and Inscriptions. III.* London, 1873–1883.

Devonshire at Chatsworth. It is to be assumed that St. Dunstan took an important part in this development, as he was himself an illuminator, and continued the literary activity of Alfred the Great.

In the dark times of the Danish invasion, however, the art of England declined the more rapidly as it was wholly without an architectural foundation. The illustrations of the eleventh century

were limited to simple pen drawings, some of which were not without a certain originality and facility, as, for instance, those of the *Officium S. Crucis et Trinitatis*, dating to the years between 1012 and 1020, now in the British Museum (Cott. MS. Tit. D. 27), and those of the *Psychomachia* of Aur. Prudentius, executed during the first half of the eleventh century, in the same collection (Cott. MS. Cleop. C. 8). In these works the influence of the school of illumination of Winchester is still perceptible; of decidedly inferior character, however, are others of the kind, such as the Latin Psalter with English notes, probably referable to the time of Edward



Fig. 268.—King Edgar between the Virgin and St. Peter. Miniature from the Codex of Edgar, in the British Museum.

the Confessor, A. D. 1041 to 1066, now in the British Museum (Cott. MS. Tib. C. 6). After the Norman conquest there was no such steady improvement in the painting as in the architecture of England. The illuminations of the French were by no means equal to those of the Anglo-Saxons. It is evident from the Latin and Norman Psalter in the British Museum (Cott. MS. Nero C. 6), that even the illustrated manuscripts of the school of Winchester were

at this time inferior to those which it had produced a century before,—this being, without doubt, due to the devotion of all energies to architectural constructions.

Scandinavia* and the other countries of the North stood, in artistic respects, upon a far lower level than England. As buildings of wood continued to be erected during the entire Romanic epoch, monumental painting was so neglected that for many centuries it was unable to follow the advance made in other parts of Europe. The excessively long and lean figures, with their brown flesh-tints and cold, bright green, blue, and red draperies and backgrounds, such as were introduced at a comparatively recent period into the Church of Bjerresjö in Sweden, are rendered the more hideous and corpse-like by their closed eyes. Compared with that of Central Europe, the production of illuminated manuscripts was inconsiderable in these countries, and their carvings distinctly show how important a feature of Northern ornamentation was the preference for monstrous forms.

* N. M. Mandelgren, *Monuments Scandinaviques du moyen-age, avec les peintures et autres ornements qui le decorent*. Copenhagen-Paris, 1855-1862.

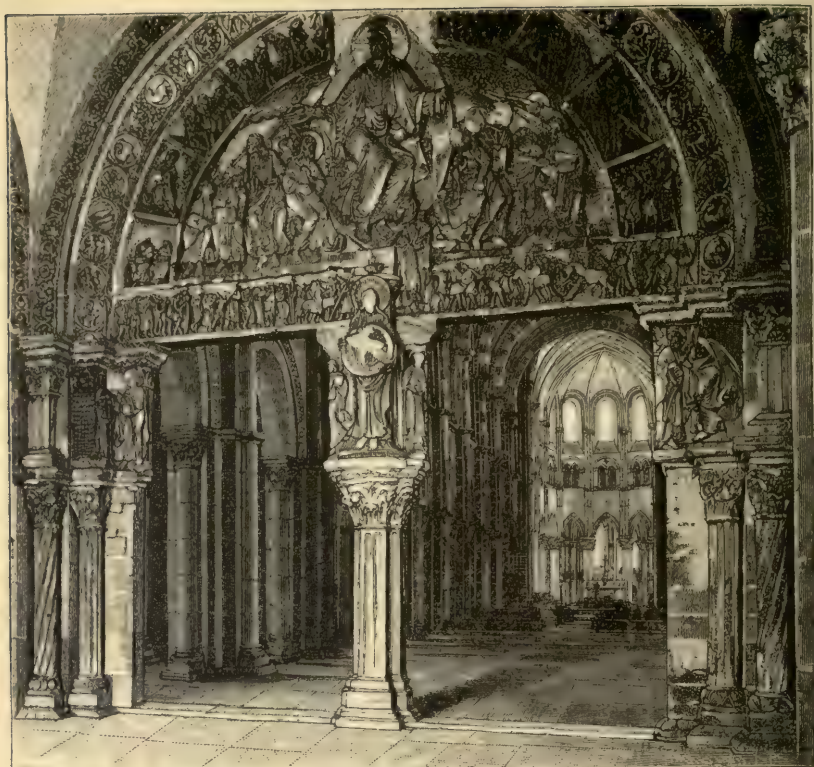


Fig. 269.—Sculptured Portal of Vezelay in Burgundy.

SCULPTURE OF THE ROMANIC EPOCH.

DURING the Early Christian, Byzantine, and Carolingian periods sculpture occupied but an inferior position among the arts, and even in the first ages of the Romanic epoch but few and unimportant tasks were assigned to this branch. Religion and architecture, which provided most of the subjects and opportunities for the development of monumental art, had decidedly favored painting, in which the former found its more adequate expression, and the latter a decoration easily applied to its as yet imperfect constructions. Monumental sculpture did not attain to a higher standard until the close of the period now under consideration. A somewhat better position fell to the lot of the minor branches.

which, comparable to the illumination of manuscripts, found employment in the decoration of utensils, especially those in ecclesiastical use. The technical methods of Byzantium, preserved by the goldsmiths, led to a more direct and lasting retention of the earlier traditions than was the case in painting, although the ornamental forms of the Romanic style were early adopted.

In the consideration of Romanic sculpture it is only with some reserve that the first place can be assigned to Germany. There being here no traditions in this art, and, especially in monumental sculpture, no direct help to be obtained from the imitation of imported models, technical facility was more difficult to acquire than it had been in painting, in which branch experiments more readily lead to comparatively good results. In the former provinces of Rome some statues and reliefs were still preserved, and it is known that even in the time of Charlemagne an equestrian statue of bronze was removed to Aix-la-Chapelle; it may, however, with reason be assumed that in the greater part of Germany no such remains existed at this period.

The way had been but little prepared for sculpture in stone by the ordinary stone-cutting required for building, the architectural decorations of earlier ages being restricted to the simplest forms, chiefly of geometrical design. The cube capital and the linear patterns of Northern art show the influence of this limitation. Even in the Rhenish provinces, notwithstanding the antique models there preserved, little more was attempted than rude ornaments of foliage in the classic style. For tombstones the commonest symbols were employed, such as the cross, the crozier, net-work, and the like; baptismal fonts were, at best, decorated with simple masks. In Germany the sculpture of figures was rare during the eleventh century. Human images appear only in reliefs, badly drawn and still more badly modelled, and in design evidently imitated from miniature paintings. These characteristics are to be observed in the modest reliefs of the frieze upon the façade of the Collegiate Church of Andlau in Alsace. The lack of artistic ability is even more apparent in the few figures in the full round, such as the David and Nathan upon the portal of the Collegiate Church of the Alte Kapelle in Ratisbon, now disfigured by a rococo restoration. The best results were at-

tained when the artists had received their training in the carving of ivory reliefs, or in the manufacture of beaten metal work. The influence of the former is evident in the two reliefs of stone in the Minster of Basle, the comparative excellence of which, if indeed they are to be ascribed to the eleventh century, can thus alone be accounted for. That representing the martyrdom of St. Vincent (*Fig. 270*) appears to be a direct imitation of such reliefs, carved upon diptychs, as were to be found at that period in the treasuries of all large churches, while the six figures of apostles, under arcades of the other panel, may be compared to those upon the gold antependium of Henry II., once preserved in the Minster of Basle.



Fig. 270.—Relief in the Minster of Basle.

Where there was no such training, the greatest rudeness is observable, even during the twelfth century,—being the more manifest the more the artist endeavored to make up for the incorrectness of the forms by an exaggeration of the action. This is the case with the relief of one of the so-called Extersteine near Horn, in the principality of Lippe-Detmold, probably executed about 1115, representing the Descent from the Cross, above a scene, now much defaced, of Adam and Eve in Paradise. Notwithstanding a certain expression of sentiment in the gestures, the helplessness of the action in the figures of Joseph of Arimathea, Nicodemus, and Christ is absolutely deplorable. No study whatever of nature is apparent,

and only slight classic reminiscences are to be observed in the draperies, to which the monotony of the folds give something of an archaistic character.

The backwardness of Cologne, and indeed of all the towns of the Middle Rhine, in the sculpture of figures, when compared with the great architectural culture of the twelfth century, can only be accounted for by the absorption of all creative power in the erection of the gigantic edifices of these districts, and the furtherance of the constructive progress which was thereby made. The neighboring province of Westphalia, though decidedly inferior in architectural respects, produced in sculpture some significant results, such as the tympanons of the portals at Erwitte, Soest, and Balve, and the baptismal fonts of Freckenhorst, Aplerbeck, and Beckum, all of which, though of little interest in their subjects, still possess certain merits of execution. The thirteen statues in the southern portal of the Cathedral of Muenster, and especially those of the southern portal of the Cathedral of Paderborn, are superior,—already approaching, however, to the characteristics of the Gothic style.

In Upper Germany, also, the attempt was made to compensate for the defects of the architecture by sculptured decorations, chiefly applied to the capitals and portals. The most elaborately ornamented capitals are found in Suabia and Alemannia, these being often of extremely rude execution, like those of the Minster of Zurich. The supports themselves were frequently decorated with patterns of tasteful design, and occasionally carved upon all sides in high-relief. Examples of this treatment are a number of columns in the cloister of the Collegiate Church of Berchtesgaden, and especially an octagonal pier in the crypt of the Cathedral of Freising, the importance of which lies in the intricate and fanciful design rather than in the mediocre execution (*Fig. 271*). The same remark applies to the many figures of the most important sculptured portal of Southern Germany, that of the Church of St. James at Ratisbon, executed towards the close of the twelfth century.

Among all the countries of Germany, the greatest importance is at this period to be assigned to Saxony, which compensated for its comparative deficiency in architectural respects by the excellence of its monumental sculpture. The Saxon artists in this branch had

gradually overcome the clumsiness which was still universal in other parts of Germany, and was observable until the middle of the twelfth century even in the districts of the Hartz, for instance at Goslar, Merseburg, and Gernrode. The influence is still to be traced which was exercised upon sculpture in stone by the bronze statuary of Bernward of Hildesheim and his successors. Yet the stone reliefs



Fig. 271.—Carved Support from the Crypt of the Cathedral of Freising.

at Hildesheim itself, and at Halberstadt, Hamersleben, Hecklingen, and Koenigslutter, with all the traditional types and Byzantine limitations, especially apparent in the draperies, betray a better understanding of form, even approaching to the classic style. Romanic sculpture, however, attained its greatest eminence in Eastern Saxony. The works there preserved almost equal in artistic excel-

lence those of the Pisani. The pulpit of Wechselburg (*Fig. 272*), notwithstanding its striking resemblance to the similar creations of Niccolo Pisano, can by no means be considered as an imitation, since it must have been executed soon after, if not at the time of, the completion of that church in 1184. It may be, however, that, as in the beginning of this period, during the reign of Henry II.,



Fig. 272.—The Pulpit of Wechselburg.

the classic impulse was strongly felt in the North, as would naturally result from the considerable intercourse between Germany and Italy through the expeditions of the emperors to Rome. This was especially the case in the time of the Hohenstaufens, who brought the classic style into fashion in the same manner as the Ottos had fostered Byzantinism at their court. The Italian character of the architectural framework of the pulpit is no less surprising than are

the classic forms of the sculptures in high-relief upon the three panels of the parapet. These represent, upon the front, Christ, with the symbols of the Evangelists, the Virgin, and St. John; upon one side, the miracle of the Brazen Serpent, and, upon the other, the sacrifices of Cain, Abel, and Abraham.

While the connection of these sculptures with those of Saxony before mentioned is still evident, it is scarcely to be traced in the altar-piece of the same church at Wechselburg, a work of somewhat later date and of a style even more perfect. This altar-piece, the lower parts of which are of the same red sandstone as the pulpit, contains in the niches four representations in relief of figures from the Old Testament, very similar in character to the sculptures of the portal of the Cathedral of Freiberg. Its execution cannot be ascribed to a period later than the first half of the thirteenth century. This is plain from the date of the completion of the edifice, as well as from the fact that the same artistic character is recognizable in the funeral monument of Count Dedo and his wife Mechthilde, in the choir of this church, which must have been erected soon after the death of the Count in 1190. From this it appears that the Golden Portal of the Cathedral of Freiberg in the Erzgebirge was also built before the middle of the thirteenth century. In the eight figures of the side walls, almost of life size, the awkwardness of the position and action so noticeable in the pulpit of Wechselburg is entirely overcome; the proportions are harmonious, the heads and hands, with all their ecclesiastical solemnity, are of a perfect beauty and significance, and the draperies are almost faultless. In dignified elegance these sculptures are fully equal to those of Niccolo Pisano, being only surpassed by the best works of the French Gothic. The same may be said of the relief in the tympanon of the portal, with the representation of the Virgin enthroned, adored on one side by the Magi, on the other by the angel and the donor. In composition this is decidedly superior to the crowded designs of Niccolo Pisano. The figures placed upon brackets between the mouldings of the arch, as was customary in the portals of the Gothic style, are less successful, those in a sitting posture particularly being cramped by the limited space.

Not only the last-named figures but all those of the portal indi-

cate an influence which renders this celebrated work a kind of anachronism. There can be but little doubt that the artist of the Golden Portal was acquainted with similar sculptures of the French Gothic dating to the end of the twelfth century, and received from them his chief inspiration. This work consequently holds a place between the two styles. While still Romanic in its architectural details, it distinctly shows in its sculpture a dependence upon Gothic models. As Gothic methods of design were almost unknown in Germany at a time when they were approaching their perfection in France, this work is to be considered as a solitary forerunner of that style.

The sculpture of Eastern Saxony seems to have exerted its influence over a wide district. In Silesia,—instance the Church of the Magdalen in Breslau,—and far into the Austrian countries, inclusive of Moravia and Hungary, unmistakable evidences of this can be traced; and decorations in relief, such as those in the eastern choir of the Cathedral of Bamberg, could scarcely have been executed without the help of Saxony. It is true that in Bamberg the cathedral treasures of the time of Henry II. provided many models for imitation in sculpture, the artistic activity, at least in ivory carvings, having been as important at the close of the Romanic epoch as at its commencement.

Germany was less productive in wood carvings during this period. The altars were generally of stone, the utensils for them of metal. Among the interior fittings of churches and palaces whatever could not be executed in these materials was made of wood, entirely without ornament. Even in the doors of the magnificent Romanic portals, and wherever a rich framework of stone rendered it desirable to give artistic importance to the wood, the antique, Byzantine, and Carolingian traditions were not abandoned, the decorations being limited to a metal revetment of the wooden panels. Thus there is but one example referable to the Romanic epoch of a wooden door carved in figures, namely that in the left transept of St. Mary of the Capitol. Wooden carvings of figures in round panels, as well as in high-reliefs, may have been somewhat more frequent, though not as common as they became during the Gothic period.

Among the oldest and most important wood carvings of this class are the three figures in high-relief of the portico of St. Emmeramnus in Ratisbon (*Fig. 273*), representing Christ, St. Dionysius, and St. Emmeramnus. At the feet of Christ is an inscription of the donor, Reginward, abbot from 1049 to 1064, according to which this work must have been executed about the middle of the eleventh century.



Fig. 273.—Carving of Wood from St. Emmeramnus, Ratisbon.

In these carvings, which without doubt were originally colored, the attitude and treatment are still rigid and awkward, and the characteristics of Byzantine metal and ivory work are plainly recognizable. The farther north, the more noticeable is the influence of those braided patterns which played so prominent a part in the wood carving of Scandinavia, while in the representation of figures no progress is to be observed in this branch during the eleventh and twelfth centuries. The truly admirable crucifix with the figures of the Virgin and St. John which surmounts the high altar in Wechselburg is, therefore, the more remarkable. What has already been said of the stone sculptures in Freiberg is true of this wonderful production, which also betrays a dependence upon the early works of the French Gothic; and yet, withal, it is an anomaly: so fine a feeling for beauty, such understanding of form, in short, features of such excellence are, for the entire thirteenth century in Germany,

enigmatical. The work is probably dependent upon the sculptures at Freiberg, but so far surpasses these that it is doubtful whether it can be ascribed to an earlier date than the end of the century in question.

With exception of the last-named Saxon examples, sculpture in

stone and wood during the Romanic epoch was inferior to that in metals. Casting in metal must have been handed down from the time of Charlemagne. The fact that the Bishop of Verden, about the year 990, gave six bronze columns to the Convent of Corvey does not, indeed, prove this assumption, as these columns might have come to Verden from the foundery of Charlemagne at Aix-la-Chapelle. Still, it is known with certainty that, a few years later, Abbot Deuthemar ordered six more columns, corresponding to the first, to be executed by the bronze founder Gottfried of Corvey, and that, in 1004, Abbot Hosad of Corvey had a monument cast in honor of a learned monk Widukind of that convent. Existing remains prove that bronze casting was practised, during the following decades, in Mayence, Hildesheim, and Augsburg.

Archbishop Willigis of Mayence, in the gates of the Cathedral cast in 1007 by Master Beringer, had still followed the Carolingian traditions. The decorations were restricted to the mouldings, the panels themselves being entirely without figures in relief, which were first introduced in the door of the Cathedral of Hildesheim, dating to the year 1015. As, in Italy, the Byzantine execution of bronze doors was chiefly in niello, it is not surprising that the celebrated work of Bishop Bernward of Hildesheim shows no reminiscences of earlier monumental sculptures. The greater, therefore, is the artistic importance of this independent production, which is indeed a worthy representative of the progress made by Saxon art in the beginning of the eleventh century. It consists of sixteen Biblical scenes: upon the left door those of the Old Testament, from the creation of Eve to the murder of Abel; upon the right, those from the New Testament, from the Annunciation to the Resurrection (*Fig. 274*). In conception and composition these are less influenced by the work in precious metals and ivory than by monumental and miniature painting, which by this time had freed itself almost entirely from Byzantine traditions. It thus resulted that these reliefs, in composition, as well as in the execution of the details, show a decided want of style. A certain hesitation and inexperience is evident in the unequal heights of the relief, the legs being flat, the upper portions of the bodies high, the heads, and in part also the arms, in the full round and detached from the back-

ground, while the accessories of architecture and foliage are pitifully bungling. Nevertheless, the energy and direct truthfulness of action, the expressive gestures, and the comparative correctness of form, even in the more difficult positions, command an interest and a respect due only to original creations,—never to a merely traditional work, however superior in technical respects.

Such originality is not found in the Column of Bernward, which is said to have been placed in the Church of St. Michael in Hildesheim in 1022, and now stands, mutilated, in the Domplatz of that town. This may or may not have been dependent upon the brazen



Fig. 274.—Adoration of the Magi. Relief upon the Bronze Gates of Hildesheim.

columns of Corvey, but certainly owes its spiral decoration of reliefs to reminiscences of the Column of Trajan or that of Marcus Aurelius. The influence of these models is unmistakable, not only in the arrangement of the spiral reliefs of Biblical subjects, but also in the conventional treatment of the figures, which, in their dull and heavy imitation of the classic style, differ greatly from those upon the door of the Cathedral of Hildesheim.

The somewhat more recent bronze gates of the Cathedral of Augsburg (*Fig. 275*) also do not attain to the pleasing effect of those of Hildesheim, although their low-relief and more equal projection of the figures from the background are in better accordance with the

conventional requirements of this kind of work. The unpretentious representations, mostly limited to single figures, are quite without that bold energy which causes the artist to risk a technical error in order to convey his idea to the beholder. They are consequently lacking in effect, it being often difficult to recognize the subjects. The reliefs are without systematic connection, the scenes being frequently repeated in a vexatious manner,—the result of their having been rearranged, and possibly the putting together of two similar sets of panels during a reconstruction of the building. Recent investigations, however, have succeeded in offering an acceptable explanation of their meaning.* The subjects, taken from the Old Testament, are the creation of Eve and her presentation to Adam as his wife, the Garden of Eden with the tempting and accursed Serpent, Moses seizing his rod transformed into a serpent, the miracle wrought by Aaron upon the rods of the Egyptians, and Samson rending the lion and slaying the Philistines. These were chosen, without doubt, because of their typological relation to Christ, such parallels being customary in the homilies of that age. The scenes from the New Testament—the parables of the woman seeking the piece of silver, the birds of heaven, and the vineyard—were conceived as alle-



Fig. 275.—Part of one of the Bronze Doors of the Cathedral of Augsburg.

* J. Merz, *Die Bildwerke an der Erzthüre des Augsburger Domes*. Stuttgart, 1885.

gories of the Church. Typological, also, are the figures Melchizedek, Moses, Aaron, David, Judas Maccabæus and the Prophets, while lions and centaurs appear as symbols of evil. The conventional style of these sculptures betrays many reminiscences of the minor works of antiquity, especially gems and coins.



Fig. 276.—Tomb of the Pretender Rudolph of Suabia, in the Cathedral of Merseburg.

To the same category with these doors belongs the so-called Altar of Crodo, formed of sheets of bronze, which was removed from the portico of the Cathedral of Goslar, now destroyed. The four male figures which uphold this altar are sculptured in the full round; they are, however, of but slight artistic value. The same may be said of the statue of the Lampadophorus in the Cathedral of Erfurt. In hardness and helplessness these are even surpassed by the figure of Archbishop Gisilerius, executed in high-relief, soon after 1004, in Magdeburg. The gigantic crucifix of Bernward of Hildesheim, in the Cathedral of Brunswick, is also exceedingly stiff; the conception of the Saviour as living, wearing a long tunic and without the crown of thorns, is, however, remarkable in iconographic respects. The next following work of importance which can be accurately dated is the funeral monument of the Pretender Rudolph of Suabia, who died in 1080 (*Fig. 276*).

It shows no progress commensurate with the great advance made in architecture during this age. Indeed, more was achieved at that time by the school of Dinant, which must be considered as belonging to France, notwithstanding the fact that it derived its origin from the Carolingian foun-

dery of Aix-la-Chapelle. The artistic excellence of the school of Dinant was equalled in Germany only towards the close of the twelfth century, at which time bronze casting was again cultivated in the Saxon countries. The baptismal font in the Cathedral of Osnabrueck, with its five representations in relief, can scarcely be compared with that of Liege; neither can the tombstone of the archbishop to Frederick Barbarossa, in the Cathedral of Magdeburg, nor the brazen lion on the Cathedral Square of Brunswick, dating to 1166, though all these works are of tolerable perfection in technical respects. At all events, the magnificent font in the Cathedral of Hildesheim, referable to the first half of the thirteenth century, far surpasses all preceding works in beauty of form and execution. The allegorical figures of the four rivers of Paradise which, kneeling with their urns, support the basin, are superior to all previous productions in the full round; but the advance is even more apparent in the reliefs upon the basin itself, which represent the passage of the Red Sea, Joshua crossing the Jordan, the Baptism of Christ, and the donor, Canon Wilbernus, adoring the Virgin. The reliefs upon the cover are not inferior; they show the blossoming rod of Aaron, the Massacre of the Innocents, the Magdalen anointing the feet of the Saviour, and the Works of Mercy.

The admiration excited in England by the metal works (*Opus Teutonicum*) of Germany in the eleventh century can hardly have decreased during the twelfth, although the exportation to the West was somewhat limited by the competition of the school of Dinant. Moreover, the fame and the productions of the Saxon founderies were extended to the farthest East, as is proved by the door of the Cathedral of Gnesen, with its eighteen representations from the life of St. Adalbert; and also the door of the Church of St. Sophia in Novgorod, which was probably cast towards the middle of the twelfth century by Master Riquinus in Magdeburg, under the superintendence of the archbishop Wichmann of that place. The progress and greater technical ability evident in these doors, when compared with those of Hildesheim, is as unmistakable as is their artistic inferiority to the reliefs of the before-mentioned font of Hildesheim.

In the altars themselves goldsmiths' work was in some cases substituted for castings in bronze. The high altar of the Abbey

Church of Petershausen, near Constance, dating to the year 983, must have been more remarkable for its rich material than for its artistic and technical excellence. The mensa was closed in front by a golden antependium richly set with jewels, and behind by a silver panel with a gilded relief of the Virgin; the wooden columns of the ciborium placed above the altar, and the arches connecting them, as well as the coffered ceiling, were reveted, partly with beaten silver and partly with gilded sheets of copper, the whole being intended to imitate the gaudy magnificence of the Ark of the Covenant. Such riches in the altar offered a temptation which could not be resisted in the financial difficulties experienced by the cloister during the twelfth century. In like manner the altar, reveted with gold and set with precious stones, which was founded by Henry II. in the Cathedral of Merseburg, was seized as booty by a band of plundering soldiers in the year 1547. The gigantic crucifix, which is said to have been executed by Archbishop Willigis about the year 1000, and was at times erected before the altar, has likewise disappeared. The beams of this were entirely covered with sheets of gold, and the hollow figure of the Saviour, over life-size and filled with relics, was of beaten gold: the whole contained six hundred pounds of pure gold, and its material value was increased by precious stones, among which were carbuncles of the size of doves' eggs, forming the eyes. That these works were not entirely without artistic importance is proved by the golden antependiums of this period which have been preserved. The finest among these is that of the Minster of Basle, now in the Musée Cluny (*Fig. 277*). It is divided into five arcades with columns; all the surfaces and mouldings are richly ornamented with vines, while the niches contain the figures of Christ, with the donors Henry II. and Kunigunde at his feet, the archangels Michael, Gabriel, and Raphael, and St. Benedict, all of beaten metal-work. Of the antependium of the Minster of Aix-la-Chapelle, perhaps referable to the time of the Ottos, only seventeen single panels of beaten gold still remain, these being now attached to a shrine of the treasury of that church. The gold antependium in the Abbey Church of Kumburg in Wurtemberg, especially remarkable for its enamels, is of considerably later date. When the ecclesiastical resources did not suffice, and no as-

sistance was obtained from imperial donations, the antependiums were made of copper beaten and gilded. Examples of this kind of work is that from Queren in Angeln, referable to about 1100, now preserved in the Germanic Museum at Nuremberg, and that from the Church of St. Ursula, now in the Chapel of the Town Hall in Cologne. Mention is also to be made of the gilded copper revetment of the parapet of the ambo in the Minster of Aix-la-Chapelle, which is richly adorned with enamels, precious stones, and ivory carvings (*Fig. 278*).



Fig. 277.—Antependium of Gold from the Minster of Basle, now in the Musée Cluny.

Though in all these monumental works the native character appears in the greater freedom of the types, Byzantine tradition is unmistakable in the composition, the forms, and technical treatment, and this is in nothing more evident than in the utensils of metal. These smaller works held a position in regard to monumental sculptures similar to that of miniature paintings to wall decorations. The imported objects were of direct influence upon metal utensils, as had been the case for centuries with goldsmiths' work, and this influence was fostered anew by the court of the empress

Theophanu (compare page 412.) This would be sufficiently shown by the technical execution, even were it not for the inscriptions in Greek letters. The preference for filigree ornaments, for rows of pearls and precious stones, and decorations in enamel and niello is decidedly Byzantine. This character is more perceptible in ornamentations than in figures, though these latter show more traces of

this style when represented in enamel and niello than in relief.

It can, however, by no means be assumed that even enamels were limited to importations from Greece or to the works of native-born Greeks. This is true especially of the so-called *émail champlévé*, or enamel upon deepened ground, which more and more supplanted the older *émail cloisonné*, or enamel with inlaid metal lines, and came to be the prevailing industry of the North in this branch. The former differs from the latter in that the panels for the pigments are cut or beaten into the sheet of gold or copper. It first appears in Germany in the crucifix of the abbess Theophanu, between 1039 and

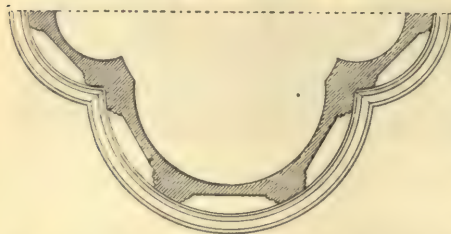


Fig. 278.—Ambo in the Choir of the Minster of Aix-la-Chapelle.

1054, in the Collegiate Church of Essen. In the *émail cloisonné*, on the other hand, the colored panels were separated by soldered gold threads. This method was chiefly practised in the provinces of Cologne, Treves, and Lorraine, and was afterwards introduced into Limoges. In connection with a number of excellent productions in this branch the names of German artists are mentioned,

among them Eilbert of Cologne, who executed the portable altar in the private treasury of the House of Hanover; Nicolaus of Verdun, the designer of the antependium in Klosterneuburg, and of the reliquary of Tournai; and Henricus Custos of Siegburg, the artist of the shrine of Anno in Siegburg near Bonn. Niello, an engraving of lines upon a combination of metals on a flat surface, bearing some relation to the *émail champlevé*, seems to have been first employed in the portable altar of the treasury of the Cathedral of Paderborn, probably consecrated by Bishop Henry II.

The chief opportunities for magnificent work in gold decorated with enamel and jewels were offered by the reliquaries. These were generally treated after the manner of the early Christian sarcophagi,

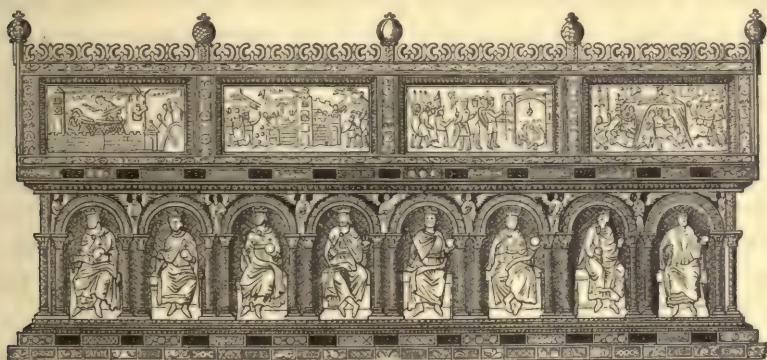


Fig. 279.—Shrine of Charlemagne in the Minster of Aix-la-Chapelle.

with reminiscences, more or less distinct, of the columnar arcades and gables of the basilicas,—the surfaces of the sides and lids being covered by tablets in relief, surrounded by ornamented frames in the same way as were the doors and antependiums. The finest works of the kind are the Shrine of the Magi in the Cathedral of Cologne, dating to 1198, the Shrine of Charlemagne in the Minster of Aix-la-Chapelle (*Fig. 279*), referable to the first half of the thirteenth century, and the shrine above the former coronation altar in the same church, which is similar to the last-mentioned example but of somewhat later date. The first-mentioned reliquary imitates the exterior of a three-aisled basilica in the elevation of the central portion above the lower lean-to roofs of the sides, while the arcades

in relief on the sides and fronts appear as a reminiscence of the interior memberment. The two shrines of Aix-la-Chapelle are simpler, and present the forms of a one-aisled building, though in the shrine of the coronation altar a transept is indicated. The sculptures and ornaments, however, both in artistic and material value, are scarcely inferior to those of the shrine of Cologne. These works appear to be from the same school, and that this had its chief seat in Cologne is made probable by the existence of five similar works in that city. Others are found at Siegburg, Osnabrueck, and Hildesheim,—this latter place, after the age of Bernward, having held a position in regard to metal work fully equal to that of the towns of the Middle Rhine. The reliquaries differed occasionally from the form of a shrine, according to the character of the objects which they contained. An instance of this is the receptacle for the staff of St. Peter in the treasury of the Cathedral of Limburg on the Lahn, with an inscription of the donor, Archbishop Egbert of Treves, dating to 980. Other casings are in the form of a bust, for skulls, or in that of an arm, a foot, or even a finger, for the corresponding parts of the skeleton. It resulted from the nature of these objects, as well as from the peculiarity of the shape, that the decoration of the shrines should be more frequently of jewels and enamel than of figures.

As has been seen, the miniatures executed for the secular and ecclesiastical princes were in striking contrast to the modest works in pen-drawing intended for the use of the monks, and in like manner the reliquaries for the country churches were very different from the magnificent shrines of the cathedrals and rich abbeys. This was true in regard to material as well as form. The rude copper work of a reliquary in the Germanic Museum at Nuremberg, dating to the eleventh century, is of extreme clumsiness, and the ungainly figures in the group of the crucifixion above the shrine barely suffice to indicate the nature of the scene. Still, even the poorest copper reliquaries, notwithstanding the awkwardness of the figures, the lack of trained skill, and the hastiness attendant upon badly paid work, generally have some decoration in enamel.

Similar in character to the reliquaries, and in a certain sense to be classed with them, are the portable altars. As these were

granted only to princes, secular or ecclesiastical, many of them were of the greatest richness and elaboration. Among them is to be mentioned that in the Museum of Darmstadt, dating to the tenth century, that from the cathedral treasure of Henry II. in Bamberg, now in the National Museum at Munich, two in Siegburg, and a fifth, dating to the eleventh century, preserved in Paderborn. Of particular beauty is the portable altar in the Collegiate Church of Melk (*Fig. 280*), executed between 1056 and 1075, the sides of which are ornamented with ivory reliefs. Another altar, now in Frankfort-on-the-Main, though surmounted by an ivory triptych, is also referable to the eleventh century; a similar adjunct appears in the shape of a diptych on an altar of this kind, of enamelled copper, now in the Archiepiscopal Museum of Cologne.

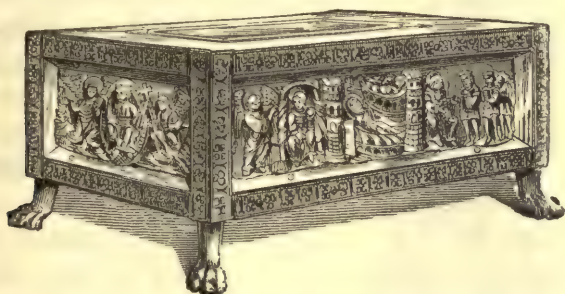


Fig. 280.—Portable Altar in the Collegiate Church of Melk.

Of greater importance are the numerous crucifixes of this period, both those standing upon the altars and those intended to be removed from place to place. In the costly enamelled gold crucifix with the Latin inscription of Queen Gisela of Hungary, wife of Stephen the Holy, which is now in the Reiche Kapelle in the royal palace in Munich, the pronounced Byzantine character is to be explained by the nationality of the donor; but in general it resulted, from the nature of the subject, that the Byzantine types were more closely followed in these works. This is proved, among others, by the four crucifixes from the tenth and eleventh centuries in the treasury of the Collegiate Church at Essen, by the crucifix of Lothair in the Minster of Aix-la-Chapelle, and by that in the Church of St. Maurice at Muenster, dating to the eleventh century. Examples of such

magnificence as these are rare, but all larger collections of antiquities contain numerous crucifixes of gilded copper, brass, ivory, etc., the artistic and material value of which are usually about equal.

Among the utensils for illumination the chandeliers were the first to receive a more independent ornamentation. There still exist in Germany four of those huge circles which were intended to represent the surrounding walls of the Heavenly Jerusalem, with towers and gates according to the description of the Apocalypse:

two of the eleventh century in the Cathedral of Hildesheim, and two of the twelfth in Aix-la-Chapelle and in Kumburg. The greatest elaboration in this branch was devoted to the seven-armed candelabra. The most magnificent of these is that given to the Collegiate Church of Essen by the abbess Mathilde, who died A.D. 1003. The forms of this, as well as of those in the Cathedral of Brunswick, St. Gangolf in Bamberg, St. Bustorf of Paderborn, the Collegiate Church of Klosterneuburg, and the Cathedral of Prague, clearly show their derivation from the relief upon the Arch of



Fig. 281.—Altar Candlestick at Klosterau on the Inn.

Titus in Rome. An improvement in the style of decoration is also evident in the Easter candlesticks, and, finally, in those for the candles used at the altar. These latter were almost exclusively of copper, ornamented chiefly at their base, either in gold and enamel or by intertwined animal forms (*Fig. 281*).

The chalice and the paten, for the consecration and communion of the wine and wafer were, almost without exception, of precious metal, generally of gilded silver. The form of the chalice of Thas-

silo, before described, was maintained until the end of the eleventh century; after that time the cup became wider, the handle being adopted only in exceptional cases. The decoration, which had before been exclusively of enamel, was now executed in relief, while the style of the ornamentation changed from the Byzantine to the Romanic. Less attention was devoted, during this period, to the *ampullæ*, or vessels for the sacrificial wine and water, than to the *aquiminalia*, which contained the water for the washing of the hands—these usually representing animals, and being made either of copper or brass (*Fig. 282*). A great number of *aquiminalia*, of the most various forms, have been collected in the Germanic museum of Nurem-

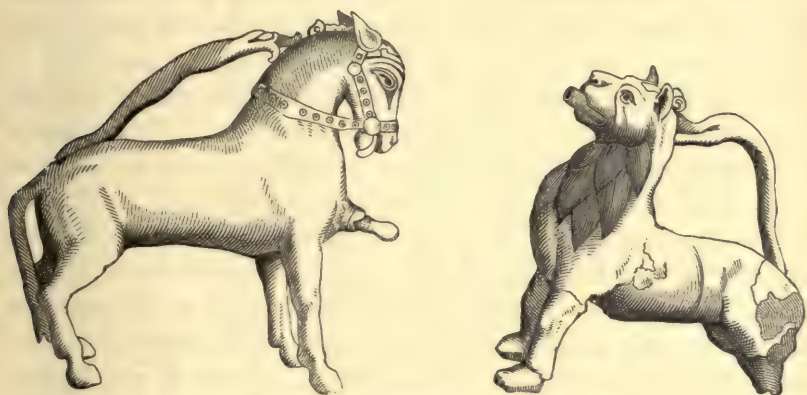


Fig. 282.—Aquiminalia of Bronze.

berg. The censers were exceedingly simple, consisting merely of bowls of iron suspended upon chains. A few basins of perforated work, with rich covers in silver or gilded copper, have been preserved, as, for instance, that in the Cathedral of Treves. The portable fonts for the holy water were generally of copper; small ivory cups, such as those used at court during the reign of the Ottos, were exceptional. Church bells were not ornamented until the Gothic period.

The art of ivory carving declined during the Romanic epoch, and during the eleventh and twelfth centuries was almost entirely limited to the crosiers, the staves of abbots and abbesses, and the elaborate bindings of manuscripts. There are, it is true, some crosiers,—such as those in Treves, St. Wolfgang, and Salzburg,—in which

the spiral is executed in gilded and enamelled copper. The curve of the staff of rock crystal at Goerz, dating to the thirteenth century, is of silver, gilded. In general, however, the termination is of ivory, and, in some instances, of walrus tooth. The covers of the magnificent codices gave opportunity for the carving of figures in relief, heightened in effect by borders of the richest goldsmiths' work. As it is doubtful whether these bindings were executed at the same time with the codices, and as the cameos, diptychs, and enamelled panels may often have been taken from older collections, it is impossible to give an accurate date for these works, which are remarkable for their gold filigree, enamels, and decorations of jewels.

Among the few which can be positively dated, the most prominent is the superb binding of the codex of Echternach, now in Gotha, the contents of which have been already described. According to the titles given to the donors, Otto III. and Theophanu, who are represented upon the cover, this can only be referred to the time of the regency of Theophanu, between 985 and 991, she being called "Empress," and Otto "King." Notwithstanding the Latin text of the inscribed names of St. Mary, St. Peter, St. Benedict, St. Boniface, St. Willibrord, and St. Liudgar, of the rivers of Paradise, Phison, Geon, Tigris, and Euphrates, and the symbols of the Evangelists, the work in gold and enamel is so decidedly of Byzantine character, and so skilful in execution, that the direct influence of the Eastern Empire is unmistakable. In consideration of the limited period during which this influence had been exercised, its results are certainly surprising. The representation of the Crucifixion upon the ivory carving which forms the central panel is of a more independent design; yet, notwithstanding certain rude and stiff features of the details, its careful workmanship displays an honest endeavor to equal the figures of the border. Similar in style, and of about the same date, are the rich covers of the Codex Aureus of Charles the Bald from St. Emmeram, those of the codices of Henry II. in Munich (Cim. 57, 58, and 60), and some other bindings in Bamberg, Hildesheim, Essen (*Fig. 283*), Treves, and Darmstadt. None of these specimens, however, fully equalled that of Gotha. In almost all the contrast is very striking between the skilful workmanship, but conventional design, of the elaborately ornamented bindings, and

the coarse and untrained execution of the miniature paintings which they contained—the illuminations being free from archaism and mechanical imitation, and consequently having the important advan-



Fig. 283. — Cover of a Codex of the Abbess Theophanu, A.D. 1039 to 1054, in the Treasury of the Collegiate Church of Essen.

tages of more marked individuality and more decidedly pronounced national character.

Although the painting and the sculpture of Germany, during

the Romanic ages, were about equally important in artistic respects, it is yet to be remarked that the tendencies of these two arts, considered from a historical stand-point, were decidedly different. The painters, in striving for a striking presentation of the subjects chosen, fell into the most undisciplined dilettanteism and the greatest tastelessness; while the sculptors, and especially the workers in metal, still retained the traditional methods of their Byzantine models, thereby securing at least a better training and a certain degree of mechanical excellence. Hence, neither of the arts could attain to a higher importance until brought into more intimate relations with each other. When this was accomplished, the forms and methods of painting were greatly improved, and that new life was given to sculpture which led to the successful development of the following period.

The sculpture of the Romanic period in Italy* differed essentially from that in Germany. In the former country there was also to be observed that dualism characteristic of German art in the time of the first emperors, but the relation of the native methods to Byzantine traditions appears entirely reversed. In Italy, Byzantinism continued in the ascendancy, in the Romanic as in the Carolingian epoch, and the native art, even during the latter ages, never quite freed itself from rudeness and barbarism; while in Germany it had, from the beginning, been of great promise, and was only secondarily affected by Oriental influences. Moreover, in Italy the two methods were not united, as in Germany, to form a harmonious style, and therefore could not attain to an independent development. Byzantinism was prevalent, especially in metal work, until the end of the twelfth century; but receiving no fresh impulse, it finally became exhausted, and the crude native dilettanteism which characterized sculpture in stone towards the close of the period under consideration, did not experience that salutary discipline and techni-

* H. W. Schulz, *Denkmäler der Kunst des Mittelalters in Unteritalien*. Dresden, 1860. — H. Semper, *Uebersicht der Geschichte der toskanischen Sculptur bis gegen Ende des XIV. Jahrhunderts*. Zürich, 1869. — The Same, *Ueber die Herkunft von Nic. Pisano's Styl*. *Zeitschr. f. b. K.* 1871. — C. v. Fabriczy, *Zur Kunstgeschichte der Hohenstaufenzeit*. *Zeitschr. f. b. K.* 1879.

cal training which the exact mechanical work of the Bosphorus might have given. Thus throughout the eleventh and twelfth centuries, no sculptures were produced in Italy which could be compared to the works of Germany. The few remaining decades of the Romanic period could but suffice for preliminary essays, after it had been wisely resolved to cast aside the Byzantine traditions, together with the independent technical methods of native workmanship, and to seek their models from among the classic sculptures of ancient Rome.

The rudeness and meagreness of Italian stone sculptures, at the beginning of the Romanic epoch, should be judged rather by retrospective conclusions derived from later works, than by the few memorials of this age, which are but seldom dated. It appears, indeed, that the marble of the country was, for several centuries, not otherwise employed than for architectural constructions. Cardinal Leo, of Ostia, pupil and historian of Abbot Desiderius of Monte Casino, was doubtless correct when, about 1100, he made the assertion that Italian art had been lost for five hundred years. The efforts of this abbot for the furtherance of art appear either not to have been directed towards sculpture in stone, or to have produced no result in this branch, the works of which, even as late as the twelfth century, were of extreme awkwardness and ugliness of form. If, for example, the marble crucifix of the Museum of Arezzo, or the statue of St. Michael in the Church of Groppoli, near Pistoja, be compared with the Descent from the Cross of the Extersteine,—or the pulpit of Groppoli (*Fig. 284*), dated A.D. 1194, with that of Wechselburg, referable to about the same period,—the superiority of Germany is at once evident. The low standard of taste is made more apparent by the boastful inscriptions, which show that these Italian sculptures were by no means the works of obscure artists, and consequently inferior to the average productions of their age. Even in Tuscany the brothers Gruamons and Adeodatus were considered by their contemporaries as sculptors of great excellence. This may be seen by the vainglorious inscriptions upon the reliefs of S. Giovanni Fuor Civitas and of S. Andrea in Pistoja (*Fig. 285*), dating to 1165. The same remarks apply to the sculptures upon the façades of the cathedrals of Modena and Ferrara, as well as of S. Zeno in Verona, works of the masters Wilhelmus and Nicolaus,

who in their time were greatly renowned; and also to the sculptures of the Porta Romana at Milan, built between 1167 and 1171. In the inscription of the latter the artist is compared to Dædalus, more fittingly, indeed, than could at that period have been understood. Bonus Amicus, sculptor of the frieze of the Campo Santo at Pisa, and that of the Church at Mensano,—Robertus, designer of the baptismal font of S. Frediano at Lucca,—and Biduinus, who executed



Fig. 284.—Pulpit in the Church of St. Michael, Groppoli.

the reliefs of S. Casciano, near Pisa, and those of S. Carità in Lucca, were in no wise superior to the masters before mentioned. From all these, and from various anonymous works, it may be gathered that, in Tuscany and in Upper Italy, sculpture in stone was more actively pursued, but, until towards the end of the twelfth century, was at the same low stand-point in both provinces.

Some few attempts were made at this time to elevate the standards of monumental art. Benedictus Antelamus, otherwise known

as Antelami or De Antelamo, in the fragment of a pulpit in a side chapel of the Cathedral at Parma representing the Crucifixion and dated 1178, exhibits some understanding of composition; and in later sculptures upon the portal of the Baptistry of Parma, dated 1196, shows a variety of subject and a novelty of treatment which is pleasing, despite the defective form. Neither the contemporaneous sculptures upon the lower part of the façade of the Cathedral of Lucca and upon the portal of the Pieve of Arezzo, nor the reliefs, considerably later, of the Pulpit of Guido da Como in S. Bartolomeo at Pistoja, equalled in importance those of Antelamus. Other works, however, were rendered of far greater significance by an unhesitating return to classic models. It is questionable whether



Fig. 285.—Sculptured Frieze of Gruamons and Adeodatus above the Portal of S. Andrea, in Pistoja.

these tendencies appeared in any work earlier than the sculptures of the baptismal font in the Baptistry of Verona, referable to the first years of the thirteenth century, in which the draperies and gestures, as well as certain other features, breathe the spirit of the new style. These tendencies are more consequentially and thoroughly developed in the choir screen of the Pieve of Ponte allo Spino near Siena, now in the transept of the Cathedral at Siena (*Fig. 286*), which is the work of an anonymous artist of about the same period, and unmistakably shows the way to have been already open for a systematic adoption of the classic methods of design.

A conscious effort to follow antique models, and thus to redeem stone sculpture from the coarseness and rudeness which had characterized this art during the eleventh and twelfth centuries, is evident

not only in Tuscany and Upper Italy but also in the southern provinces. In these districts such works as the sculptures of the portal of the Cathedral of Trani, and the reliefs of the pulpit of S. Maria del Lago at Moscufo, had shown that no good results were to be obtained in sculpture through the imitation of Byzantine paintings, and also that the requisite ability was wanting to attain satisfactory results by independent attempts. In Upper Italy and Tuscany the commencement of studies from the antique seems to have proceeded solely from the individual discernment of the artists them-



Fig. 286.—Relief from the Pieve of Ponte allo Spino.

selves, while in Campania it received a strong impulse from the classic taste of the Hohenstaufens. That this was particularly the case during the reign of Frederick II. is proved by existing remains. Among these, mention should be made of the so-called Augustals, gold coins bearing the portrait of the Emperor upon the obverse, and the imperial eagle upon the reverse, which were issued in Brindisi and Messina, and by their beauty and classic character so delighted the Emperor that in the year 1221 he presented the crown estate of Viaregio, near Lucca, to the superintendent of the mint, Pagano Balduino. The statues and busts with which Frederick, in 1240, ornamented the abutment of

the bridge over the Volturno, near Capua, bear the same close relation to the antique; of these the badly weathered torso of the statue of the Emperor, the head of the allegorical figure of Capua Imperialis, and the two busts, one designated as that of the Chancellor Pietro delle Vigne (*Fig. 287*), the other as that of the Chief-justice Taddeo da Sessa, are now preserved in the Museum of Capua. With these busts may also be classed the female head upon the pulpit of the Cathedral of Ravello, dating to A. D. 1272, which has, without doubt erroneously, been considered as the por-

trait of the foundress Sigelgaita Rufolo (*Fig. 288*); and also the female bust from Scala near Amalfi, now in the Museum of Berlin. In all these works there was, together with a direct conformity to classic models, a technical perfection so remarkable as almost to make them appear as anachronisms, the more so as other productions of Lower Italy dating to this period are different and decidedly inferior. It is therefore scarcely possible to ascribe these sculptures to the Peregrinus who executed the Easter candlestick and the choir screen of Sessa. The artist of the classic sculptures at Capua may with more



Fig. 287.—Bust known as that of Pietro delle Vigne. Museum of Capua.



Fig. 288.—Bust known as that of Sigelgaita Rufolo in the Cathedral of Ravello.

probability be identified with the designer of the Augustal coins; or at least one common school may be assumed for both; this certainly must have been earlier than the time of Niccolo Pisano, and may be considered as presaging the new era inaugurated by him. The great Pisan artist, however, worked in the second half of the thirteenth century, and his productions, even more than the sculptures of the portal at Freiberg or the altar-piece at Wechselburg, belong to the beginning of the Gothic rather than to the transitional period.

Sculpture in bronze was taken up earlier than that in marble, although,—with exception of certain isolated barbaric attempts,

such as the doors in beaten metal of S. Zeno in Verona,—the demands in this branch had, during the eleventh century, been supplied by importations from Byzantium. This is attested by a great number of bronze doors, several of which must have existed in Amalfi before the year 1062. Among the many works of this kind, dedicated by the wealthy patrician family of Pantaleon, are the doors of the Convent Church of Monte Casino, A. D. 1066, of S. Paolo fuori le Mura near Rome, A. D. 1076, of S. Angelo upon Mount Gargano, A. D. 1076, and of S. Salvatore at Atrani, A. D. 1087. The Byzantine origin of the doors of S. Paolo and S. Angelo is certified by inscriptions, and that of the others is rendered probable by the absolute similarity of their style and execution. Furthermore, it is proved by contemporary evidence that the door ordered by Abbot Desiderius for St. Martin in Monte Casino was executed in Constantinople; and this may, with good ground, be presumed to have been the case also with that of the Cathedral of Salerno, dedicated by Robert Guiscard. The more recent of the two doors of St. Mark in Venice—that bearing the dedicatory inscription of Procurator Leo de Molino, A. D. 1112—seems to be a copy made in the Occident from a Byzantine model. The execution is the same in all. The sheets of metal which form the revetment of the wooden doors are enclosed by a projecting frame-work of bronze, ornamented in low-relief. The panels are decorated in niello: the figures being drawn in incised lines, and the surfaces filled in with sheets and threads of silver, or with a colored cement resembling enamel.

The difficulty and the delay experienced in abandoning the Byzantine traditions is evident in a number of bronze doors, dating to the beginning of the twelfth century, which were, without doubt, executed by Italian artists who had not as yet been able to free themselves from a dependence upon imported models. Master Rogerius of Amalfi, in the doors of the Mortuary Chapel of Boemund of Antiochia in Canosa, A. D. 1111, endeavored to add some sculptured ornament to the frames, knockers, etc.; as did also Oderisius of Benevento in the two doors of the Cathedral of Troja, dating to 1119 and 1127. If the imposing door of the Cathedral of Benevento, with its seventy-two panels in relief, be not referable to the early part of the twelfth century, fifty years must have passed before

Lower Italy and Sicily produced any works of native design entirely decorated in relief, such as the doors of the Cathedral of Trani, of that of Ravello, and of the northern portal of the Cathedral of Monreale—all of which were executed by Barisanus of Trani, about 1180. The dependency upon Byzantine models is but little to be observed in these works, which rather resemble certain German doors, particularly those of the Cathedral of Augsburg, though the direct influence of Germany cannot be demonstrated. An artistic impulse from Pisa may be assumed with greater probability, inasmuch as the bronze

door in relief in the southern transept of the cathedral of that city (*Fig. 289*), which, though exceedingly primitive, is not without some understanding of composition, may be as early as the beginning of the twelfth century. Moreover we learn that a Pisan artist, one Bonannus, who had executed a door of the Cathedral of Pisa, was, in 1186, engaged upon the door of the western portal of the Cathedral of Monreale. The employment of artists from neighboring towns was nat-



Fig. 289.—Part of a Bronze Door of the Cathedral of Pisa.

ural, especially in the frequented maritime cities of Italy; still, it is strange that the brothers Albertus (Hubertus) and Petrus, who in the year 1203 executed the bronze gates of the Chapel of St. John in the Baptistery of the Lateran, were natives of Lausanne, —not, as Rumohr would have us believe, of Piacenza.

The imitations in wood of bronze doors in relief, dating to about 1200, such as the fine example of S. Sabina in Rome, that of Alba Fucese, and that of the Cathedral of Spalatro, together with the various wood carvings of the Abruzzi, especially those of Aquila, need not here be described in detail. The same is the case with those

ecclesiastical furnishings which are connected with the so-called Cosmatic decorations, referred to in the chapter upon Romanic architecture. The preference for the system of revetment introduced by Cosmas in great measure explains the neglect of work in bronze and precious metals, Italy being decidedly inferior to Germany in these latter branches. In rare cases, where metal-work was required for the utensils of the altar, a rigid Byzantine character is noticeable, like that in the bronze doors of the time of the Pantaleoni. And this was equally true, whether the productions were of Byzantine origin, like the celebrated superfrontale of the so-called Pala d'Oro, A.D. 976, in the Church of St. Mark, Venice, or whether they were imitations of models imported from Constantinople, such as the antependium of beaten silver, dating to 1144, in the Cathedral of Città di Castello. It is worthy of note that Venice, in the eleventh and twelfth centuries, carried on a manufacture of considerable importance in goldsmiths' work, especially in enamel, rather for exportation to Germany and France than to supply any demand in Italy itself. Still, many of its productions, particularly the magnificent bindings, remained in the wealthy City of the Lagoons.

The preponderance of works of large dimensions in marble and bronze shows that, in general, the activity of Italy was directed towards the grand and monumental, in characteristic contrast to that of Germany, where, during the Romanic epoch, sculpture was chiefly employed for the decoration of minor utensils.

The variety of style which was so noticeable in the architecture of the several provinces of France* does not obtain in the sculpture of that country. The fundamental basis of the latter art in the eleventh century, as well as the novel tendencies appearing in the twelfth, were the same throughout the whole of France. But the degree of ability, the relations of native artistic traditions to external influences, the time spent in development, the opportunities for practice, and, consequently, the results obtained, are very diverse. Furthermore, in sculpture, as in architecture, we find no place

* M. Viollet-le-Duc. *Dictionnaire raisonné de l'Architecture Française du XI^e au XVI^e Siècle. Sculpture.* Vol. VIII. 1866.

which can be regarded as the central point of development, for the school of Cluny only became of importance towards the close of the period in question, which was here of comparatively short duration.

During the eleventh century France had no sculpture worthy of remark. The few works produced, when not absolutely barbarous, seem to hesitate between a helpless adherence to the expiring traditions of ancient Rome and an imitation of imported Byzantine models. A rude manner of workmanship, entirely without training, is chiefly found in the North; Roman influences prevail in the countries of the Rhone; and the Byzantine element is most prominent in and about Toulouse.

It is only at the beginning of the twelfth century that a greater number of schools are to be distinguished, and that a more vigorous activity makes itself manifest, this being, however, almost entirely limited to the stone sculptures required for the decoration of architectural constructions. The Provence had the important advantage of possessing, in its numerous Roman remains, an abundance of models, not only architectural but sculptural. The façades and portals of the Church of Saint-Gilles (Gard), begun in 1116, and of the Church of St. Trophime in Arles (*Fig. 204*), dating to the middle of the twelfth century, are remarkable productions, of a classic character unparalleled at that time in Italy. But, notwithstanding the harmonious relations of the architecture and sculpture, the admirable composition and excellent execution of both, a closer observation of the details shows that the Provence did not go beyond a mechanical imitation of older works,—was, indeed, less independent than certain of the other provinces. When no help was to be derived from tradition, the Provençal productions were vapid and often coarse. The lack of all national independence and artistic individuality is particularly to be observed in the heads, which are even more destitute of character and expression than are those of the contemporary works of Northern France.

The school of Toulouse, despite its inferior basis, had higher aims. Of its original Byzantine characteristics it retained only the technical training and manner of expression, combining with these a great delicacy of execution, careful study of dramatic action, and an effective rendering of gesture and drapery, to which the stiff

Byzantine art did not even aspire. This is evident in the historical representations upon the capitals of the cloister at Moissac, built about 1100, and those of the cloister of St. Sernin at Toulouse, dating to 1150 (*Fig. 290*). To these may be added the sculptures of the portal of the Convent Church at Souillac, and of that of the Abbey Church at Conques, as well as those of the Town Hall at Saint-Antonin, and of the cloister of St. Bertrand at Comminge.



Fig. 290.—The Daughter of Herodias demands the Head of John the Baptist. Relief upon a Capital of St. Sernin, now in the Museum of Toulouse.

In the group of cities north of Toulouse, from Cahors to Limoges, sculpture was founded upon the same Byzantine basis,—fostered by the commercial relations with Venice, which in no other part of France were more active than in the district of Limoges. An attempt was here made to improve the Byzantine style, but without the carefulness in detail and the dramatic tendency of the school of Toulouse. A higher standard of beauty was thus attained, as, for example, in the tympanon of the Cathedral of Cahors, dating to the beginning of the twelfth century, though with less

success in the natural vivacity of the action.

The substantial character of the work in the country of the Garonne was not equalled in the neighboring provinces of Angoumois and Poitou. On the other hand, the sculptured decorations were greatly increased in extent. In the Cathedral of Angoulême (*Fig. 216*), and in Notre-Dame-la-Grande of Poitiers, the overloaded composition of Byzantine missal-covers was transferred to the entire front of the building,—breaking altogether loose from the classic

limitations observed in the sculptured façades of the Provence. The advantages assured by the antique principles of design were thus almost entirely lost. The architectural framework was overgrown by a luxuriant ornamentation, determined by a capricious fancy which endeavored to attain a general richness of effect rather than any higher artistic qualities. The same decorative character, regardless of minor features, is noticeable in the churches of Ruffec and Civray.

North of the Loire the antique influence was no longer felt. In the Celtic provinces of Brittany the few examples preserved from this period exhibit an unrestrained caprice, in which may be traced reminiscences of the relationship to the Irish race. In view of the great political and architectural activity which had been developed in Normandy during the latter half of the eleventh century, it is surprising that so little original work of importance was here produced. For, apart from certain insignificant sculptures which may have strayed into this country from the Netherlands, only isolated examples of the greatest rudeness are met with, such as the relief of David upon the Church of St. Georges at Boscherville, which is of comparatively late date. The Ile de France, which, in the Gothic epoch, became the centre of development, was as unproductive as the provinces Orléanois, Berry, and Bourbonnois. The sculptures of the tympanon of the Porte Saint-Ursin at Bourges, dating to the twelfth century, and inscribed with the name of the artist, Girauldus, are naive and unpretentious, and are especially interesting on account of the secular subject represented (*Fig. 291*).

The best works of sculpture produced in France during the Romanic period are found in the eastern provinces, especially in Burgundy. The school of Toulouse had preserved somewhat of the characteristics of the Visigoths. That of Burgundy, in like manner, retained traces of the primitive national elements of this country. From the earliest ages the inhabitants had been celebrated for their carvings in wood, much as the Comacini had been for their stone-cutting; it was therefore natural that the Burgundian characteristics should manifest themselves chiefly in wood carving, in striking contrast to the stone sculpture of the South. But this was not the only, or even the principal, cause of the superior development of sculpture in this province. For Cluny, which, towards the

close of the eleventh century, began to exercise considerable influence in this branch,—to the vexation of that ascetic zealot, Bernhard of Clairvaux,—employed also other artists than those of Burgundy. Moreover, the models were sought not so much in the old wood carvings, or in the classic remains preserved in Burgundy, as in the small Byzantine works in miniature, enamel, and ivory sculpture. The application of the technical training thus gained to sculpture in stone was effected in a manner more independent, and upon a better principle, than it had been in Western France. The Byzantine style, which, as it were, formed the elementary basis of the art of



Fig. 291.—Tympanon of the Porte Saint-Ursin at Bourges.

Cluny, did not preclude a close observation of nature; but this was directed less towards the rendering of feeling and expression, as in the school of Toulouse, than to the individual representation of heads, hands, and feet, the draperies remaining Byzantine.

In the sculptures of the portal of Vezelay near Avallon (*Fig. 269*), completed soon after 1120, and in the relief of the tympanon of the portal of the Cathedral at Autun, executed by Master Gislebertus after 1150, it cannot but be remarked that the heads have lost the hieratic conventionalism which had characterized them in the debased classic not less than in the Byzantine style. The mechanical uniformity is superseded by the greatest diversity, this appearing

not only in the determination of the types but even in a portrait-like individuality. At the present day, among the peasants of Morvan, heads are met with similar to those represented in these sculptures, and it cannot, therefore, be doubted that the assiduous artists of Cluny took their models from their immediate surroundings. This deliberate return to nature resulted in the emancipation of art from the trammels of a thousand years, and the talent and success of the Burgundians in elevating themselves above the barbarism of the neighboring provinces was of the greatest promise for the future. It is true, nature was still imitated with a certain one-sidedness and limitation, the draperies especially retaining their traditional forms, but this does not detract from the significance of the advance. The way was hereby opened for the marvellous development which sculpture was to attain in the Gothic epoch after the close of the twelfth century,—not only in France but in all the countries of the North.

The extension of the monastic order of Cluny led to the extension of this truly national art over a great part of France. Before the middle of the twelfth century similar types of heads are met with, not only in the western portal of the Cathedral of Chartres,—in which the life and naturalness of the faces contrast strongly with the mummy-like Byzantine bodies and draperies,—but also in Poitou and in some works of the district of Toulouse. How typical these are of race and lineage, in comparison with the Byzantine and later classic heads, is shown by the portraits of the French king and queen from Notre-Dame in Corbeil, now preserved in St. Denis (*Figs. 292 and 293*).

The chief field for this new movement in France was found in stone sculpture in connection with architecture. Metal-work was but little in demand, and the same was the case with wood carving, which, after the twelfth century, was neglected even by the Burgundians. It appears that the few requirements in monumental bronze casting were at first supplied, as in Italy, by importations from Constantinople, through the medium of Venice and Genoa; but in later times by the productions of the Belgian school of Dinant. This school is known to us by the beautiful baptismal font in the Church of St. Bartholomew at Liege, which was cast soon after

1112, by Lambert Patras, of Dinant, at the order of Abbot Helenius of Orval. In thoroughness of execution and correctness of form this surpasses even the works of the foundry at Hildesheim. It is not surprising that such castings should have been greatly admired in Northern France, where little progress had been made in this branch. Members of the guild were called to France, and Dinant came to be looked upon as a high-school of bronze founding. This is made evident, less by the remaining specimens of the work in



Fig. 292.—Head of a King, said to be Clovis.



Fig. 293.—Head of a Queen, said to be Clotilde.

Sculptures from the Portal of Notre-Dame in Corbeil, now in St. Denis.

Northern France than by the fact that bronze founders long continued to be known as "Dinandiers."

The conditions of goldsmiths' work were much the same as those of bronze casting, the former branch being chiefly affected by the influences of the Rhenish countries and by those introduced through Aquitania. It is difficult to determine whether the traditions of work in the precious metals, which prevailed during the Carolingian period, still continued in force, or whether an entirely new impulse made itself felt at the time of the Crusades; but this

is of little moment in historical respects, inasmuch as this branch of art did not attain to the same importance in France and Italy as in Germany. An exception may be made in favor of Limoges, where much enamelled work was produced, this industry being established either through a direct connection with Venice, or through an imitation of the methods of Lorraine, which latter province, like the Rhenish countries, early cultivated the *émail champlevé*.

Of the other countries of Europe little is to be said in regard to this branch of art during the Romanic epoch. Christian Spain was even more dependent upon France in its sculpture than in its architecture, and exhibited none of those realistic tendencies which characterized it during the subsequent period. England, in sculpture, could learn nothing from its Norman missionaries, and its productions were limited to barbaric wood carvings, such as chests, chess-figures, etc. In the rare cases where monumental sculptures were attempted, as in capitals and cornices, rude forms of masks and monsters appear side by side with primitive symbols. The works of this class are either of the most rigid and lifeless Byzantinism, as, for instance, the sculptures of the west portal of the Cathedral of Rochester, or of incompetent dilettanteism, as the statue of Bishop Herbert in the portal of the northern transept of the Cathedral of Norwich, the sculptured decoration of the south portal of the Cathedral of Ely, and the crucifix of Romsey. The same may be said of Scotland and Ireland, where wood carving had early been practised; and more especially also of Scandinavia. The monstrous carved ornaments of intertwined patterns, peculiar to Northern art, have already been referred to. The few productions worthy of remark, and referable to this period, which are to be met with in Denmark, Norway, and Sweden,—such as the altar-piece with an antependium and superfrontale in relief, from Lisbjerg in Jutland, now in the South Kensington Museum of London,—must be assumed to have been imported from the southern coast of the Baltic, or from some other country visited by the ships of the seafaring inhabitants. Higher culture had but reached its first stages in these northern lands, and no important monumental sculpture was possible until architecture had attained a higher development.

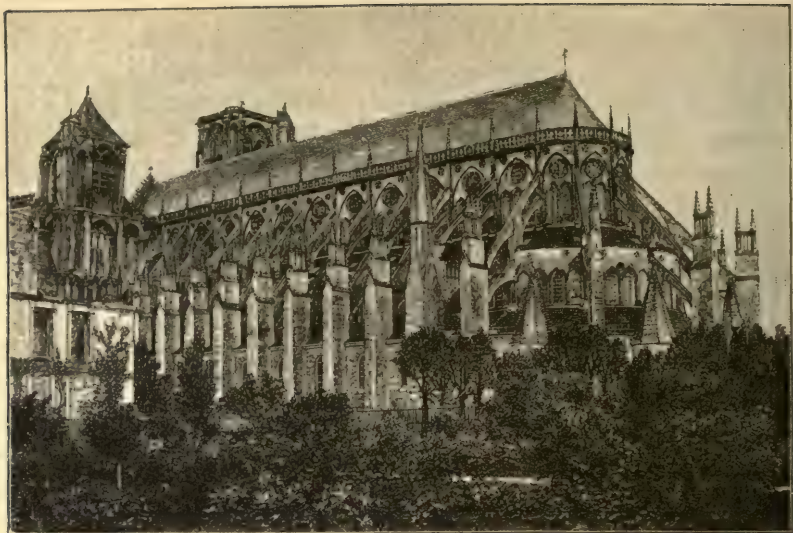


Fig. 294.—View of the Cathedral of Bourges.

GOTHIC ARCHITECTURE IN FRANCE.

IT has been frequently observed that no definite line of demarcation can be drawn between the Romanic and Gothic styles. It is true the development of the various artistic features did not advance with perfect regularity. Forms justly regarded as characteristic of the Gothic style are recognizable in the painting and sculpture of the Romanic period; and, on the other hand, certain primitive traits were retained, with but unimportant alterations, until the close of the Middle Ages. The same is the case, at least in some districts of France, with the plan and construction of architectural monuments. A historical continuity is thus undeniable.

But this might be said with quite as much truth of the changes which led from the style of the Carolingian to that of the Romanic epoch. The Gothic modes of construction were based upon the Romanic, in the same way as these latter had been developed from the Carolingian alterations of the classic basilical plan. In both cases a consequential development affected previously existing methods of artistic expression. But with the Gothic this growth was something more than a new branch of the old tree. Even in the

age of the Ottos the conceptions formerly prevalent had undergone a great change, and in the succeeding period they were entirely revolutionized. New political and social relations so entirely altered the character of Occidental civilization that its products were essentially different. The results of the Crusades certainly did not correspond to the sacrifices which they had required, but they, nevertheless, like a thunder-storm, cleared the heavy and sultry air which had hung over Europe during the later Romanic period. Art was taken by the laity from the hands of the clergy and the monkish communities, and was freed from dogmatic traditions. In poetry, sculpture, and painting, the study of nature was cultivated, and in architecture a greater independence and individuality soon made itself felt.

Moreover, the chief seat of artistic activity was removed from Germany. The Romanic architecture of the Rhenish countries had been too elaborately and successfully developed, and was too independent of foreign influences to be easily supplanted by another style. Its buildings had attained a systematic and organic perfection, which answered the requirements of the country long after the period in which the style had been determined, and was but little affected by the artistic innovations of neighboring countries. Circumstances were more favorable for the new forms in those regions where but few of the branches of construction and of decoration had been carried beyond the experimental stage,—where, indeed, many successful and important advances had been made, but without the development of a complete and widely adopted architectural system. Great changes were, however, not possible until the various races had attained to a political unity, and through this to more intimate relations in respect to artistic culture. The new style could not be perfected until the advances of the different nations had been combined. This could best be achieved in a tract but little influenced by maritime commerce, without earlier traditions so strong as to have become prejudices, yet with a fresh and receptive artistic activity, supported by an increasing political power.

These conditions were possessed by France.* Each province of

* M. Viollet-le-Duc, *Dictionnaire raisonné de l'Architecture Française du XI^e au XVI^e siècle*. Paris, 1858-1868. — C. Schnaase, *Geschichte der bildenden Künste im Mittelalter*. Vols. III. and IV., 2d Edition. Düsseldorf, 1872.

this country had attained to a peculiar but not entirely satisfactory development during the Romanic epoch, and each had a certain share in the formation of the Gothic style. Even in the eleventh century pointed arches and pointed barrel-vaults had been common in Southern France, while the employment of bisected vaults had familiarized the builders with the principle of the flying buttress. In Burgundy and Auvergne a higher development of the transept had long been in process, and the splendid arrangement of the choir with the surrounding passage and radial chapels had been introduced in Romanic buildings. In Burgundy the barrel-vaults of Southern France were employed side by side with cross-vaults, the latter constructive form attaining a new importance by the exchange of the Roman method of two intersecting barrel-vaults in favor of the execution of the ceiling as panels between a complex of ribs, which expedient rendered an equal span between the supports and an equal height of the transverse arches no longer necessary. In Normandy the sixfold vault was evolved from the cross-vault. The forms of the details, also, had, in various parts of the country, assumed a character which was as different from that of the Romanic style as from the antique reminiscences. All these innovations, however, were isolated,—like local idioms, from no one of which alone could a new language be formed. These modest alterations or makeshifts did not, in themselves, amount to a new style. Indecision, a clumsy helplessness, a fortuitous arrangement, and even whimsical and arbitrary freaks of design, were the characteristics of the imperfectly organized Romanic style of France at the beginning of the twelfth century,—a period of so perfect an architectural development in Germany. But all these traits may, in greater or less degree, be considered as attempts to determine an entirely new system, superior to that hitherto in universal employment,—to perfect which, however, it was necessary to unite all forces in the greatest possible exertion.

The closest approach to this end was made in those provinces where an extended architectural activity had been combined with the favorable union of different artistic traditions, namely, in Burgundy and Normandy. In the former the success is mainly to be ascribed to the well-regulated and aspiring zeal of the monks of

Cluny, the extension of which order was accompanied by a noteworthy series of buildings. In the latter there ruled a young and powerful dynasty, the adventurous energy of which would unquestionably have enabled this race to surpass their neighbors upon the south in monumental as well as in political competition, had not their hereditary Norse love of the sea led them as conquerors in other directions. The inhabitants of both countries combined, as we have seen, the artistic elements of the neighboring French provinces with Rhenish and also with Lombardic tendencies. The unsettled style which thus resulted would not have been important but for peculiar innovations which give to the later works a transitional character. The ultimate and consequential development of these advances could not, however, be made either by the Normans or by the Burgundians. The former, notwithstanding their admirable treatment of the wall-surfaces and vaults, still retained the round arch. The latter, though adopting pointed forms not only in the vaults, but, as at Autun (*Fig. 295*), in the arcades, still did not free themselves entirely from the restrictions of the barrel-vault. In the Abbey Church of Vezelay, where the introduction of cross-vaults had been attempted, the pointed arch was combined with this method of vaulting (*Fig. 296*) some years before the important innovations made by Abbot Suger. But before the systems of Autun and Vezelay had reached the perfection observable in the Cathedral of Langres, Burgundy was surpassed in architectural respects by other districts.

In the first decades of the twelfth century a greater architectural activity began in the northern provinces of the interior of France, which had taken so little part in the artistic development after the Merovingian period. The different races of the South and North had here been so intermixed that the inhabitants of this region were the first to present the characteristic type of the French nationality. The dukes who had here first assumed the royal title extended their sway throughout the entire country. The chivalry of this part of France had won high renown during the Crusades. Science and literature were nowhere more actively cultivated. Moreover, the deficiency of architectural monuments during earlier ages rendered circumstances particularly favorable for the erection of a

great number of buildings and the introduction of new forms. Thus the city of Paris rapidly became the centre of Occidental civilization, and, although then far from having the population of two hundred thousand souls, which it possessed at the end of the thirteenth century, it was even in this age one of the largest cities of Europe.

At the time when Suger became abbot of St. Denis, near Paris, in the year 1121, the Ile de France was influenced in artistic re-

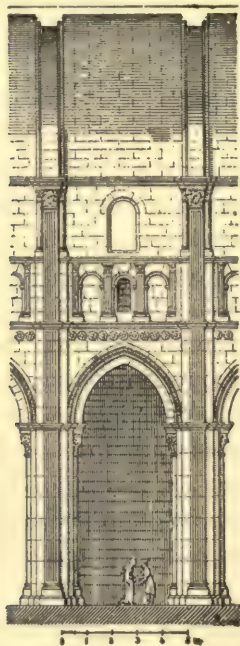


Fig. 295.—System of the Cathedral of Autun.

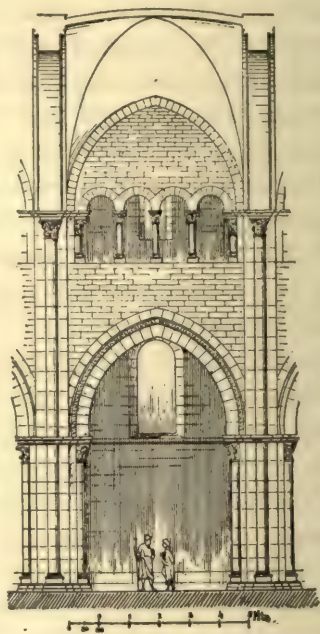


Fig. 296.—System of the Portico of the Abbey Church of Vezelay.

spects equally by Burgundy and Normandy. The south of the province was naturally more inclined to follow the artistic methods of Burgundy, as in the Convent Church of Preuilly, while, in the north, Norman models were imitated, as is evident in St. Père at Chartres. Paris itself took a middle course, exemplified in St. Martin-des-Champs, and evidently endeavored to profit by all the traditions within the reach of the advancing capital. Like Charlemagne, the abbot Suger adopted methods of construction

from all those countries with which he entertained relations, even employing ancient Roman materials. He continued the building of the old Abbey Church of St. Denis, completing its façade in 1140. This structure had been designed under the influence of St. Etienne at Caen, and was of the transitional style, the form of the pointed arches of the lateral portals next to the round-arched main entrance having been determined by the limited space, while the pointed windows above were adopted from a preference for this shape. The crypt beneath this church, built in 1140 and 1141, is still entirely Romanic. The construction of the choir followed without a suspension of the work, between 1141 and 1144, and displays a systematic introduction of the pointed arch for arcades, windows, and vaults. Thus a development was here made in but little more than a decade, for which elsewhere an entire century was requisite.

This advance did not long remain an isolated instance. A great number of episcopal cities, from Chartres to the provinces of Champagne and Picardy, rivalled the capital in bold and magnificent constructions. At about the same time with the Abbey Church of St. Denis there arose the enormous churches of Noyon, St. Germer, Rheims, and Châlons-sur-Marne, while the cathedrals of Laon, Sens, and Senlis were contemporaneous with the Cathedral of Paris, begun twenty years after St. Denis.

The Cathedral of Chartres, begun in 1145, shows in the façade,—the only portion dating to the original construction,—a systematic employment of the pointed arch, and a decided advance beyond the façade of St. Denis, which had been completed five years previously. Important innovations are also noticeable in the Cathedral of Noyon (Picardy), rebuilt after the fire of 1131. Notwithstanding its Romanic reminiscences it does not seem to have been begun before St. Denis, for the abbot Suger's detailed account of his work makes no mention of Noyon, and the relations of the bishop Balduin of Noyon to Suger, as well as various peculiarities of the building itself, favor the assumption that some of the designers employed by Balduin had previously been engaged upon St. Denis. Moreover, the transepts of Noyon show a decided improvement upon those of the Cathedral of Tournay from which they were imitated, and the latter structure cannot have been erected before 1145, as the chap-

ter of this cathedral, which had been connected with that of Noyon after the destruction of Tournay, was not re-established in its former seat until the before-mentioned year. On the other hand, some altars in the Cathedral of Noyon were consecrated as early as 1153. Contemporaneous with this building was the reconstruction of the Abbey Church of St. Germer, on the borders of Normandy, which was slowly carried on after 1136, and exhibits a combination of pointed forms with Romanic elements. The direct influence of St. Denis is evident in the pointed arched choir of St. Germain-des-Prés at Paris, built after the middle of the twelfth century and consecrated about 1163.

A further advance is perceptible in the constructions of Champagne, perhaps referable to the same architect, namely, the rebuilding of St. Remy in Rheims, and the new Church of Notre-Dame in Châlons-sur-Marne,—the former begun in 1164 and completed in 1181, the latter commenced soon after the fall of the original structure in 1157 and consecrated in 1183. To these may be added the Cathedral of Sens, rebuilt after the fire of 1152, in which edifice an altar was consecrated as early as 1164, while the architect is known to have left the site eleven years later; also the Cathedral of Senlis, begun at about the same time but not consecrated until 1191. To this brilliant group of early Gothic churches belong, finally, the two most magnificent edifices of the twelfth century, the Cathedrals of Laon and Paris,—the one begun in 1160, and, at least in part, employed for divine service in 1173, the other built after 1163, its choir consecrated in 1182. The resemblance of these two last-named buildings is very striking, notwithstanding the rectilinear termination of the plan, and the occasional introduction of round arches in Laon.

In all these churches, begun within the short space of thirty years, the characteristics of the early Gothic are distinctly evident. The most noticeable change is the great increase of dimensions, which had kept pace with the increase of means and ability. The Crusades had made sacrifices to the Church more general and more important. He who could not take the cross himself felt called upon to make compensation either by money offerings or by gratuitous services. Nobles and peasants joined together to drag from

the quarries the blocks which were to serve for the building of St. Denis, and during the construction of the façade of Chartres the work was regarded as a direct act of devotion. When the funds provided by the founders and the communities were not sufficient, all classes made contributions, and, as had been the case at a former period with the convents, the dioceses and towns made the building of churches a matter of religious zeal as well as of proud rivalry.

The Gothic arrangement of plan was determined with main reference to the interior, not only as in all Christian churches, but was even more regardless of the outer appearance than was the case in the best Romanic creations. Three characteristics are noticeable from the first: the cruciform plan, the organic connection of the choir with the body of the church, and the two towers of the façade.

The chief attention was naturally devoted to the development of the choir. This was brought into more intimate connection with the nave and aisles by the reduction or entire omission of the elevation of the crypt, and by the adoption of the same dimensions of width and height as those decided upon for the body of the church. With the exception of the straight-lined termination of the choir in the Cathedral of Laon, the apsidal system of Burgundy and Auvergne was universally adopted for the surrounding passage and radial chapels. The semicircle of columns remained towards the high altar, excepting in the Cathedral of Sens (*Fig. 299*), where the alternation of columns and piers was continued around the choir. In the Church of Notre-Dame in Paris (*Fig. 298*) the surrounding passage was doubled, in accordance with the five-aisled plan. The radial chapels were brought into more organic connection than had been the case in the churches of Burgundy and Auvergne, through the division of the separate spaces by piers alone, as, for instance, in St. Denis, Noyon, Châlons-sur-Marne, Rheims, and Senlis. In the Cathedral of Paris the chapels were originally separated on account of the double passage, as in the Cathedral of Bourges, a later imitation, and occasionally they were omitted, with the exception of a single apse in the main axis, as in Sens and Langres.

The transept in St. Denis, Rheims, and Noyon (*Fig. 297*) had remained close to the end of the choir, improving but little upon

the design of the earlier models. The end walls were of the most various arrangement, appearing as grand apses in Noyon, after the manner of the before-mentioned Cathedral of Tournay, which had been influenced by the plan common in Cologne. Subsequently the transept was gradually moved towards the west, until it occupied about the middle of the building. It remained one-aisled, projecting little beyond the body of the church, and consequently of but slight importance. The Cathedral of Laon is exceptional in this respect, the transept not only being of the same plan as the

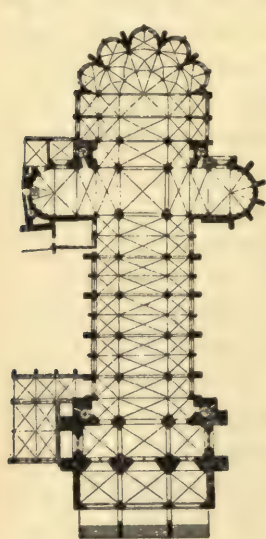


Fig. 297.—Cathedral of Noyon.

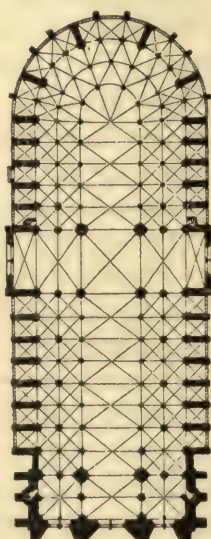


Fig. 298.—Notre-Dame of Paris.

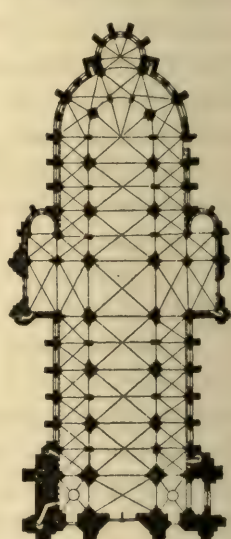


Fig. 299.—Cathedral of Sens.

three-aisled body of the church, but being provided with towers at the corners and projecting chapels upon the eastern side. These chapels, which had become necessary through the omission of the radial apses from the end of the church, appear elsewhere only in the Cathedral of Sens, which had originally but one chapel in the choir, and was, in the transept, of a peculiar formation, with an unsymmetrical side aisle upon the east.

In the formation of the nave some evidences of indecision are recognizable; these are to be ascribed to the tendency of the earlier

Gothic architects to employ columns in place of the piers, which had been customary during the Romanic epoch. When supports of round plan had been introduced into Romanic buildings, they had proved advantageous for the extension of the space but not for the design of the elevations; thus the alternations of columns and piers had been gradually relinquished, even in the sixfold or cross-vaulted compartments, where the less important functions of the intermediate shafts seemed to demand a difference in the supports. The Burgundian disposition of the choir, with its semicircle of columns, was of decided influence upon the formation of the nave. As a treatment of the choir uniform with that of the nave was considered indispensable, and the curve around the altar seemed to preclude the introduction of piers, it naturally resulted that the body of the church, as well as the choir, was provided with columns. This may in some measure be considered as a return to the principles of the columned basilicas of the Carolingian and Romanic epochs. Still, it cannot be proved that this arrangement was generally adopted during the earliest ages of the Gothic style. The original plan of the nave is no longer evident in St. Denis, because of changes made during later reconstructions; moreover, it may be doubted whether the design of this church would be of importance in this connection, as the abbot Suger had, in this part of the building, retained as much of the original structure as possible. Nor are we better informed concerning the first design of the nave at Chartres, only the western front of that cathedral being referable to this period. In Noyon there is an alternation of grouped piers and columns, and a similar arrangement appears in Sens, where coupled columns, equalling the thickness of the wall, are placed between the richly membered piers. The transformation of the supports of St. Remy to clustered columns is to be considered only as an elaborate variation of the earlier pillars, and in Notre-Dame of Châlons-sur-Marne the angular piers are strengthened by eight engaged shafts. An exclusive employment of columns first appears in the Cathedral of Paris and that of Laon. It is not surprising that the importance of these two edifices, and the evident advantages of cylindrical supports for the extension of the plan, led to the general adoption of columns, and their further memberment by boltels: a compromise being thus

effected between the pier with engaged shafts and the clustered column.

A peculiarity evident from the first in the Gothic plan is the addition of two towers to the western façade,—an arrangement which had appeared in certain cases in the ecclesiastical buildings of the Romanic style, especially of Normandy. These towers formed an imposing termination of the side aisles, flanking the portico before the nave and the organ-loft, and rendering the western front fully equal in importance to the lavishly decorated choir. The entrance to the building was thus emphasized and made more dignified.

Features of the interior common to all the before-mentioned buildings were the attic base, with the Romanic corner leaf, the smooth and but slightly diminished shaft, and the capital, still imitated from the Corinthian forms. This last is no longer carved with the intertwined forms and figures peculiar to the fanciful ornamentations of the Romanic style; the foliage is treated in a more realistic manner, the ends of the leaves beginning to be curled and rolled up. The pillars are always connected by pointed arches, those above the narrower intercolumniations of the choir being either stilted, as in Burgundy and Auvergne, or lancet-shaped. In general, the height of the arch is less than its span. The archivolts of Noyon are of a plain, rectangular profile; elsewhere Romanic mouldings were adopted. Upon the side towards the aisles, and the passage around the choir, the capitals serve as imposts for transverse arches, with circular mouldings and diagonal ribs, the vaults being, with but few exceptions, groined and panelled. Towards the nave the capitals are surmounted by engaged shafts, commonly consisting of three boltels, which are continued to the spring of the main vault, dividing the wall surfaces of the clerestory, and supporting upon their small capitals the transverse arches and ribs of the principal vault. This is similar in treatment to the vaults of the side aisles. As, notwithstanding the example of Vezelay, the compartments remained of an approximately square plan, the ceiling of the nave continued to be based, according to the Romanic system, upon six supports, whether these were of an alternate arrangement or not. The sixfold vault, like that of St. Étienne at Caen, was universally adopted, this having the advantages of employing the intermediate shafts as func-

tional supports of the vault, of reducing the extent and the weight of the vaulting panels, of diminishing the thrust, and, finally, of increasing the memberment of the wall and vault surfaces.

The Norman models, which had been of decisive influence in the development of this system of vaulting, were also followed in the horizontal division of the walls (*Figs. 300 and 301*). As in the churches of Normandy, an upper story of the side aisles was open

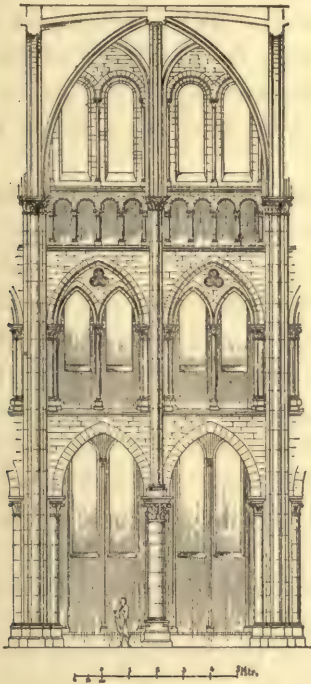


Fig. 300.—System of the Cathedral of Noyon.

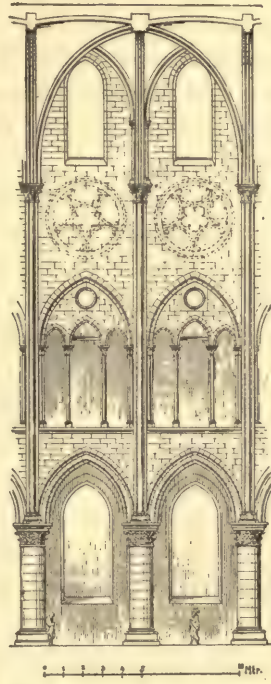


Fig. 301.—System of Notre-Dame of Paris.

towards the nave as a gallery, two or three small arches supported upon columns and united by one relieving arch appearing in each compartment. While either a gallery or a triforium was introduced into the Romanic structures, the early Gothic buildings were commonly provided with both: the triforium ornamenting that part of the wall which corresponded to the lean-to roof, and providing a narrow passage in the thickness of the wall. The wall arches were

opened by windows without mullions; these, like the triforiums, were at first round-arched, a systematic employment of pointed forms appearing first in Notre-Dame at Paris. In this cathedral round windows formerly took the place of the triforium; these were closed and masked in later times, as the horizontal memberment was felt to be too much emphasized and the stories too crowded. For similar reasons the introduction of galleries became less common, the side aisles thus gaining in height and the pillars and arches having more space for free development. This arrangement, which had appeared even in the Norman style in the Church of Boscher-ville, was first employed among Gothic buildings in the Cathedral of Sens, and did not become universal until after the erection of the choir of Vezelay.

Significant as were the changes made in the interior during the early Gothic period, those of the exterior, although resulting directly from the construction of the enclosing walls, were even more important. The masonry had so increased in height and slenderness, and had been so perforated by windows and arcades, that its stability was greatly diminished. The slight reduction of the thrust, resulting from the adoption of pointed instead of round forms in the arches and vaults, was more than equalled by the increase of lateral pressure through the transformation of the antique cross-vault into the system of groins and panels: the mass of the vault being inclined like a cupola against the walls. Abutments were provided at the two ends of the church by the conch of the apse on the one hand, and by the massive masonry of the towers on the other. For the support of the sides of the building there was, with the isolated exception of the rampant barrel-vaults of the Minster of Aix-la-Chapelle, but one method worthy of imitation, namely, that cultivated in Southern France, in which the thrust of the barrel-vault above the nave was met by the bisected barrel-vaults of the side aisles.

From this construction was derived the system of flying buttresses, consequentially developed in the Gothic style. The bisected form had provided the abutment for a continuous barrel-vault: the weight and thrust, which had been interrupted and concentrated upon certain points, was now met by a division of the counteracting

mass into separate buttresses. By this division many of the disadvantages of the former system were avoided. It was no longer necessary to carry up the outer wall as an abutment to the spring of the main vault, thus preventing the introduction of clerestory windows, for the flying buttresses interfered but very slightly with the admission of light into the nave through the apertures between them. It was possible to increase the supporting power of the construction without disadvantage to the interior, which, in the Provençal system, had been much disfigured by the disproportionately high barrel-vaulted side aisles. The flying buttresses upon the exterior lent themselves more readily to a decorative treatment than did the bisected barrel-vaults in the interior, especially as these supports agreed well with the vertical tendencies of the entire design. Moreover, the extrados of the buttress arches served as gutters for carrying off the rain from the roof of the nave, the fall of which upon the low lean-to roofs of the side aisles was felt to be a disadvantage. By gargoyles projecting from the uprights the water was thrown entirely beyond the walls of the building.

This system was not only adopted for the longer sides, but was continued around the curve of the choir: the unity of design noticeable within the building thus being secured for the exterior. (Compare *Fig. 294*.) Upon the sides the lower part of the buttresses projected far beyond the outer walls; in the choir they were employed as the divisions of the terminal chapels, and were not visible from without. The radial position of the abutments and flying buttresses of the piers was not of so good effect, the perspective view causing the intersecting lines to appear confused and disjointed, like the irregular timbers of a staging. The semicircular form was at first retained, not only for the choir but for the surrounding passage and the radial chapels, despite the fact that the buttresses seemed to call for the adoption of a polygonal plan.

The greatest uncertainty and insufficiency was exhibited by the transept. Although it was evident that the system of flying buttresses adopted for the body of the church should be employed here also, especially in the case of transepts of more than one aisle, it was not at first considered possible to overcome the difficulties presented by the intersection of transept and nave. In some instances

the main piers of the intersection were increased in thickness, in others heavy abutments were placed at the corners of the end wall; occasionally, as at Noyon, an apsidal projection was adopted for the termination. The organic solution of the problem, the application of abutments of cruciform plan, was not found until a later period.

The two towers of the main façade, derived from the Norman edifices as before described, were almost invariably adopted, the nave being continued to the front wall of these structures. A system of piers was introduced in place of the heavy walls of the Romanic style. The Romanic pilaster strips of the corners were exchanged for projecting buttresses, although no windows or other openings through the walls had seemed to render this innovation necessary; this was the case even in the earliest period, when the windows were still of round form, as in the older tower of the Abbey Church of St. Germain at Auxerre (*Fig. 302*), dating to the first half of the twelfth century. The oldest towers built entirely in the Gothic style, such as that of the Church of the Holy Trinity at Vendôme (*Fig. 303*), also referable to the first half of the twelfth century, the southern tower of the Cathedral of Chartres (*Fig. 304*), and that of St. Romain at Rouen, have a further buttress in the middle of the walls. An organic connection of the stories of these towers with the horizontal divisions of the walls of the church was effected by a stepped diminution of the buttress projections, by string-courses upon all sides, and by groups of windows corresponding to the landings of the staircase within. In the belfry, which was elevated above the roof of the nave, the square plan of the sub-structure was transformed into an octagon by the introduction of four small turrets, whose pointed roofs were carried up above the main cornice. The juncture of the steeple was occasionally masked by four gables. In accordance with the Norman models the stone spire was extremely tapering. Its upper parts were lavishly and delicately ornamented, the window openings being multiplied and increased in size, the turrets carried up as slender pinnacles, and the cornice of the spire decorated, as at Senlis, with crockets in the form of bunches of leaves similar to those of the early Gothic capitals. By this arrangement the multiplication of members in the super-structure, required by the principles of design, was effected, while

the construction was rendered lighter by the perforations of the higher surfaces. The decoration of the spire was thus made to correspond to the elaboration of the portals, although it was not at first customary to place the side entrances in the substructure of the towers. The portals of the twelfth century had advanced but little beyond those of the Romanic style, and are generally only to be

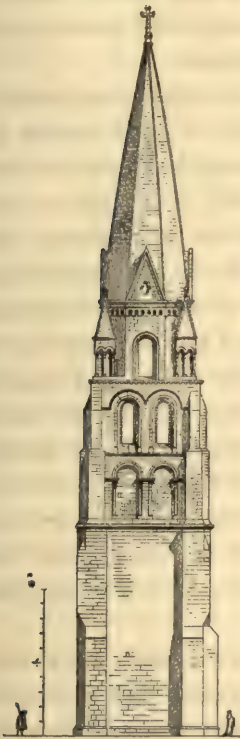


Fig. 302.—Tower of St. Germain at Auxerre.



Fig. 303.—Tower of the Church of the Holy Trinity at Vendôme.



Fig. 304.—Southern Tower of the Cathedral of Chartres.

distinguished from those of the preceding period by their pointed forms. Indeed, the entire treatment of the façade differed but little from that of the Romanic churches.

It naturally resulted, from the great dimensions of the towers, that, in contrast to the Romanic, and in particular to the Rhenish preference for many structures of the kind, the Gothic style had but

two, the tower above the intersection of transept and nave being generally omitted. Even the two steeples of the front were but seldom completed during this period. After the building of St. Denis and the Cathedral of Chartres the method of construction was so changed that the beginning was not made with the western end, the chief façade, but with the choir. The façades and the towers of most of the before-mentioned cathedrals and abbey churches were thus delayed until the thirteenth century, and consequently represent the second phase of Gothic development.

In the latter half of the twelfth century the architectural activity of the Ile de France and its neighborhood was of great extent and success, and the religious enthusiasm which prevailed from the third crusade until the close of the reign of Louis IX., A.D. 1190 to 1270, even increased the number and importance of the monuments. The experience gained during the first fifty years of the new style taught most important practical lessons, and many of the traditional and archaic features, as well as the uncertainties and imperfections of the design, were overcome. Without reducing the forms to a conventional system, and without decreasing their great variety, the builders had nevertheless come to recognize certain principles of design: the methods were no longer tentative, but of a regular perfection, the static calculations were made with understanding, the taste and artistic feeling improved and settled. Hence, as might have been expected, the rise of the system was rapid, and soon led to its greatest eminence.

Chief among the works in which these improvements are evident are the Cathedral of Soissons, built for the greater part during the first years of the thirteenth century, the southern transept of which, however, was begun soon after 1175; the Cathedral of Chartres, rebuilt after the conflagration of 1195 and almost entirely completed in 1220; the choir of the Cathedral of Rheims, the completion of which was delayed until the close of the century; the Cathedral of Amiens, built between 1220 and 1288; and the Choir of Beauvais, referable to the period between 1225 and 1269, but much modified by the renovation made after the fall of some parts of the structure in the year 1284. Besides these important edifices, which are to be considered as representatives of the highest development of the

Gothic style, we have to mention the Cathedral of Bourges (*Fig. 294*). Its reconstruction was determined upon as early as 1172, and Notre-Dame at Paris was chosen as the model for the five-aisled plan and for the arrangement of the choir; the execution, however, was not undertaken until the beginning of the thirteenth century. Another example is the Cathedral of Troyes, the choir of which was built between 1208 and 1223, while the transept was not completed until 1314, and the nave is even as late as 1429. The choirs of the cathedrals of Auxerre, Saint-Omer, and Le Mans date to the beginning of the thirteenth century. The nave of St. Denis was constructed in its present form between 1231 and 1281, and it was probably about this time that the rebuilding of the Cathedral of Tours, after its destruction by fire in 1168, was brought to a termination. The Abbey Church of St. Julien, also in Tours, is referable to the same period. The Cathedral of Châlons-sur-Marne was built entirely anew after the conflagration of 1230; and the Gothic choir of the Cathedral of Cambrai was added to the Romanic nave between 1230 and 1251.

The designs of the before-mentioned buildings were followed in smaller convent and collegiate churches, palace chapels, and even common parish churches, with some alterations naturally determined by local peculiarities and by the requirements of a simpler service. The Convent Church of Ste. Nicaise in Rheims, built after 1229, destroyed during the French Revolution, but known from drawings, must have been among the most perfect creations of the Gothic period. Of the highest importance is the Sainte Chapelle at Paris (*Fig. 305*), the gem of all palace chapels, built between 1243 and 1251. It is a one-aisled structure with a lower story,—so harmonious in proportions, and



Fig. 305.—Section of the Sainte Chapelle, Paris.

so tastefully designed in details, that it has naturally served as a model for all similar edifices of the period, such as the Palace Chapel of Saint-Germain-en-Laye, the Chapel of the Virgin of Saint-Germain-des-Prés in Paris, and that of St. Germer in Picardy. Still, it is not to be denied that certain evidences of debasement appear as early as the second half of the thirteenth century, as, for instance, in the Collegiate Church of St. Urbain in Troyes, erected by the pope Urban IV., between 1261 and 1264, upon the site of the house in which his cradle had stood, next to the cobbler's shop of his father.

Although, as is well known, architectural activity in France was chiefly directed by the guilds of designers at Paris, Laon, Noyon, Chartres, Rheims, and Amiens, it is not the less true that creative genius in this art was much more personal and individual than at any former period. While the names of but few builders, such as Abbot Suger or Guillaume of Sens, appear in connection with the earlier Gothic edifices, the architects of the fully developed style are frequently mentioned. Among them are Ingebramus, who was engaged at the beginning of the thirteenth century upon the Cathedral of Rouen and the Abbey of Bec; Hugo li Bergier, who died in 1263, the highly gifted designer of Ste. Nicaise at Rheims; Peter of Montereau († 1266), the architect of the beautiful Sainte Chapelle and of the Chapel of the Virgin of Saint-Germain-des-Prés in Paris; Eudes of Montreuil († 1289), who built the Church of the Franciscans in Paris, which was burned in the sixteenth century; and Robert de Coucy, the architect of the Cathedral of Rheims, and successor of Bergier in Ste. Nicaise of that town. The names of three designers who were engaged upon the Cathedral of Amiens before 1312 have come down to us,—Robert de Lusarches, Thomas de Cormont, and the son of the latter, Master Renaud. The greatest interest attaches to Villard de Honnecourt of Picardy, who was employed upon the Choir of Cambrai, begun in 1230, and has become well known through his sketch-book, now preserved in the National Library of Paris.*

* J. B. Lassus et A. Darcel, *Album de Villard de Honnecourt, architecte du XIII^e siècle*. Paris, 1858.

The employment of architects of renown, together with their well-trained superintendents and workmen, facilitated the introduction of the new style into the provinces. Normandy, from which such important structural improvements had proceeded in the foregoing period, was surprisingly slow in accepting the new methods of design. Indications of a transitional stage in the second half of the twelfth century are there few and isolated. The Abbey Church of Fécamp, the choir of which was completed between 1170 and 1181, is almost entirely of the Norman-Romanic style, and displays Gothic features only in the western portions of the nave, dating to the thirteenth century. A similar retention of Romanic elements appears in the Abbey Church of Eu, built between 1186 and 1226, although early Gothic details are comparatively more prominent in its choir. The designs of St. Remy and Noyon are imitated in the choir of the Abbey Church of St. Étienne at Caen, built at about this time. Still, in this building there are many Norman reminiscences, perhaps determined by the reaction from England, which country had, at an earlier period, directly adopted the French-Gothic style in the Cathedral of Canterbury. The Cathedral of Rouen, begun in 1207, displays in far greater measure the Gothic features of the neighboring provinces, this being particularly the case in the choir, with its three chapels of semicircular plan and its high mullioned windows. But it was not until after the reappearance of the earlier method of construction in the cathedrals of Louviers and of Lisieux,—the former of which was consecrated in 1226, while the latter was commenced in the same year,—that the perfected Gothic style was introduced into Normandy in the Cathedral of Coutances, begun in 1250. After the political union of this province with France, a similarity of architectural style was inevitable.

Although Burgundy had also developed many of those features which were adopted by the Gothic architects, the advance made in the Ile de France was not immediately followed in this district. The systems of the older parts of Vezelay and Autun, chiefly consisting of pointed-arched barrel-vaults and round-arched cross-vaults, continued to be employed, the pointed arch appearing but rarely during the twelfth century. The first introduction of the fully developed style was in the Choir of Vezelay, probably built between

1198 and 1206, and in the churches of Montreal and Pont Aubert, which show a certain dependency upon the architecture of the neighboring diocese of Auxerre. Notre-Dame of Dijon, begun about 1230, at a time when French-Gothic had already attained its highest eminence, is of a pleasing transitional character, the result, without doubt, of the employment of a Burgundian architect. The general features of the plan, especially those of the beautiful portico, are peculiar to this province, and are still evident, notwithstanding the extensive modern restoration. The dependence of Western Switzerland upon Burgundy, in this as in the preceding epoch, is proved by the Cathedral of Lausanne, consecrated in 1275, and by that of Geneva, of the same date.

In Southern France, where the fundamental elements of the Gothic were more entirely lacking than in Normandy and Burgundy, the style was introduced rather than developed,—opportunities favorable for this change presenting themselves after the persecution of the Albigenses. The long-accustomed barrel-vaults and piers of rectangular plan were, however, retained for some time. In the district of the Rhone the Romanic style was prevalent throughout the thirteenth century, notwithstanding the fact that the Cathedral of Lyons, a town much influenced by Burgundy, had adopted many Gothic forms early in this age. The transition was more complete in the western part of the province, especially in Languedoc, where, after the victories of the French, the new style was introduced, as it were by force. The Abbey Church of St. Paul and the Cathedral, both at Narbonne,—the latter of which, because of its enormous dimensions, was not continued beyond the choir,—are important monuments of this stage of development, as are also the Cathedral of Beziers and the Abbey Church of St. Nazaire at Carcassonne. Similar to the Cathedral of Narbonne is that of Clermont-Ferrand, the earlier portion of which was built between 1248 and 1390, the first architect being Jean de Campis. In this building the style of Northern France is recognizable, and it is even probable that the architect himself was a native of the Ile de France. If the style of this building be compared with the independent design of Notre-Dame-du-Port of the same place, the entire change from the artistic methods of the thirteenth century, and the fact that the

country had in the mean time become a French province, are plainly evident.

Even before the provinces of the South had been subjugated by the Ile de France, those of the West had come into the possession of the English kings, through the marriage of Henry II. with Eleanor. It is not strange, therefore, that the Gothic, introduced during the first half of the thirteenth century, should have been characterized by Norman and English traits. Still, the Choir of St. Maurice in Angers, which was added to the Romanic structure between 1225 and

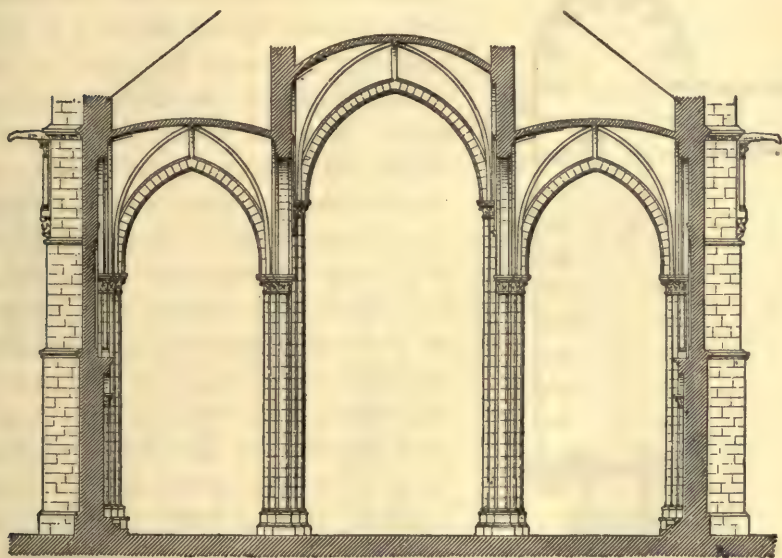


Fig. 306.—Section of the Gothic part of the Cathedral of Poitiers.

1240, shows so few Gothic features that this independence, at a time when the neighboring provinces had attained to so high a degree of development in the new style, can only have resulted from a conscious resistance to such innovations. In like manner the remarkable Cathedral of Poitiers,—the only church of this kind of great dimensions in Northern France, and, moreover, entirely of the Romanic style in the eastern portions, which were begun in 1162,—has side aisles of nearly the same height as the nave, thus following the example of certain Romanic edifices of the South, even in the Gothic

additions to the original structure (*Fig. 306*). It is true that, after the middle of the thirteenth century, the influence of Central France became more and more apparent in the West,—as, for instance, in the Gothic parts of St. André in Bordeaux, and especially in the Cathedral of Limoges, begun in 1270; but at the same time many national peculiarities are manifest, notably in those districts where they had been determined by the lack of building-stone and the consequent employment of brick. Thus, in Aquitania, one-aisled churches continued to be built at a later period than in the Provence, the Western countries having imitated in this respect the domed structures of the Romanic period. It became customary to place the heavy buttress-piers within the building instead of without, thus forming a number of chapels upon the sides. In the Cathedral of Alby (*Fig. 307*) an imposing gallery was built above these chapels, the summits of its cross-vaults reaching nearly to the height of the nave, so as to allow the edifice to be covered by a single roof, like that of the Church of Poitiers. A massiveness of masonry, fully equalling that of Alby, is noticeable in several buildings in South-western France, the towers of the cathedrals of Narbonne and Beziers, as well as those

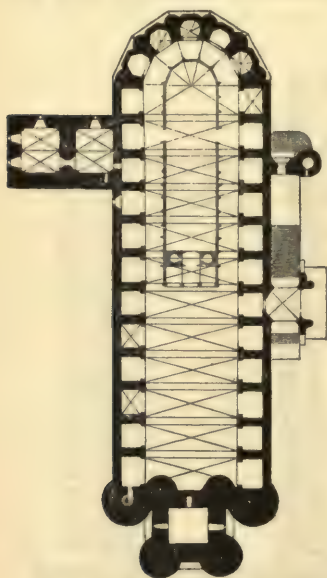


Fig. 307.—Plan of the Cathedral of Alby.

of a number of parochial and convent churches, having almost the appearance of fortifications. The walls naturally became even thicker in those cases where they were built of flint rubble instead of brick.

None of these countries exercised great influence upon the growth of the style, and during the thirteenth century the northern provinces of the interior alone were of importance in this respect. We there find a logical development of the principles which had been adopted in the early Gothic of the twelfth century. The plan

was improved by a harmonious adjustment, rather than by any real transformation. The choir retained its radial chapels, the semicircle of the termination being more and more frequently exchanged for a polygon. In imitation of the plan of Notre-Dame of Paris, a duplication of the side aisles and of the surrounding passage became more common; but it was only in rare instances, as at Chartres (*Fig. 308*) and Le Mans, that the complicated arrangement was adopted to which the radial enlargement of the supports of the choir naturally led, it being generally found preferable to divide into five aisles only

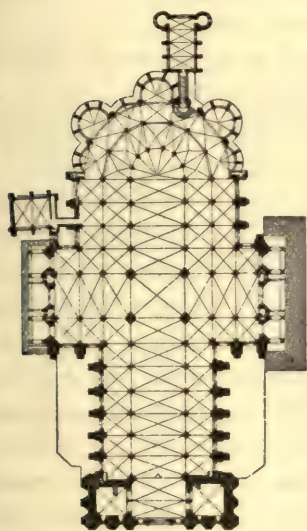


Fig. 308.—Plan of the Cathedral of Chartres.

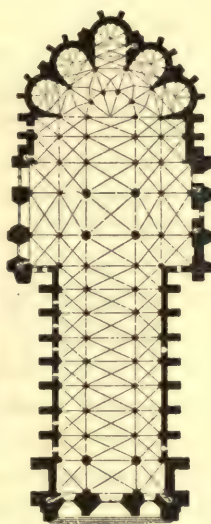


Fig. 309.—Plan of the Cathedral of Rheims.

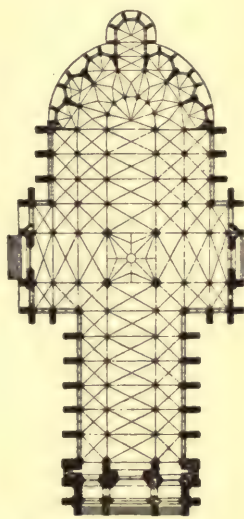


Fig. 310.—Plan of the Cathedral of Amiens.

that portion of the choir which was of rectilinear plan, and to introduce radial chapels in place of the outermost passage, thus increasing their depth, as at Rheims (*Fig. 309*) and Amiens (*Fig. 310*). Notre-Dame of Paris also provided an excellent example of an extension of the presbytery, which had come to be so desirable in the cathedrals, the transept in this church having been placed almost in the middle of the entire structure. This disposition now became the rule, the enlargement of the choir permitting the transept to be made accessible to the lay worshippers. When the choir of short

plan was retained, as in the Cathedral of Rheims, the transept was enclosed with the choir, this being readily effected by making the choir five-aisled and the nave three-aisled, so that the width of the former was nearly equal to the length of the transept. The transept itself was generally three-aisled, and treated in elevation like the body of the church, the cruciform plan thus being emphasized, while the entire edifice became of more harmonious proportions. Rather than return to the insufficient one-aisled transept of slight projection, like that of Notre-Dame, it was in exceptional cases found preferable to omit the transept altogether, as, for instance, in the Cathedral of Bourges, which in other respects is closely related to that of Paris. In this arrangement an equal height of the building from one end to the other naturally resulted, the monotonous sides thus having, at least upon the exterior, a certain resemblance to those of the peripteral temples of Greece (*Fig. 294*).

Scarcely less important than those of the plan were the changes which affected the elevation. The simple columns of the interior were almost universally given up, but piers did not often take their place, being only observable among the more prominent buildings, as, for instance, in the cathedrals of Troyes and Rouen, and, alternating with round shafts, in the Cathedral of Chartres. In general, heavy supports of this kind were employed only in those positions where exceptional stability was required, as, for instance, at the intersection of transept and nave and beneath the towers. The inorganic method of the early Gothic style in placing the boltels above the capitals of the pillars was superseded by an arrangement similar to that of the Romanic supports, by which the engaged shafts were continued down to the ground, the pier being thus surrounded by three-quarter columns. These were increased in number from four to eight, and, probably first in the Cathedral of Le Mans, to twelve, being of different heights, according to their employment as vaulting posts for the ceilings of the nave or of the side aisles, or as mouldings upon the intrados of the arches. They concealed the kernel of the support almost entirely, so that the execution of an independent capital was no longer possible. In the nave of St. Denis the bundle of small shafts was made the more prominent by channelling the few surfaces of the kernel which still remained visi-

ble, an effective alternation of roundels and scotias thus being obtained.

It was necessary to alter the low proportions of the capitals which had surmounted the engaged columns during the Romanic epoch, in order to bring them into harmony with the excessively elongated shafts. The Corinthian calyx kernel was increased in height and strength by the addition of an abacus of several mouldings, adapted by its polygonal or circular plan to receive the ribs of similar section. The character of the sculptured decoration was entirely changed. Even in the earliest ages of the Gothic style a



Fig. 311.—Capital dating to the beginning of the Thirteenth Century.



Fig. 312.—Capital from the Sainte Chapelle, Paris.



Fig. 313.—Capital from the Triforium of the Cathedral of Limoges.

transition from the conventional to a more realistic foliage was apparent. This led at first to the introduction of twisted and folded knops, which, like the spring buds imitated, did not distinctly display the individual characteristics of any kind of foliage. By the year 1240, however, the traditional plant forms were entirely exchanged for realistic representations of the leaves of trees, such as the oak, maple, fig, and beech; or of shrubs, as the laurel, rose, holly, raspberry-bush, and grape-vine. The branches were placed more loosely and unsymmetrically around the calyx, not appearing to form part of the architectural member, but showing the ends of their stems in such a manner as to seem merely fastened upon it.

So inorganic an arrangement naturally led to the rapid decline of this style of decoration, through want of a correct conventional treatment. Notwithstanding their elaboration, this development of the supports gave them a character of great unity, increased by the boltels which ran uninterrupted from the floor to the impost of the vault. The sixfold vaults of the Romanic style, requiring, as they did, an alternation of columns and piers, were given up in favor of a more harmonious constructive system. The Gothic vaultings made it possible to deviate from the square plan, the arrangement of groins relieving it from the restrictions of the Roman cross-vaults, while the pointed arch permitted the adoption of any desirable height of the crowns. In like manner the abutments and flying buttresses stood ready to receive the lateral thrust, considerably increased upon the narrow sides of the compartments. Thus all the members of this constructive system became equal in functional importance. The rhythmical alternation of columns and piers was lost, it is true, but this was more than made up by the perspective effect attained by the duplication of the transverse arches, and by the freedom from the disadvantages of supports of different sections. The greatest improvement, however, was the more elaborate and delicate memberment of transverse arches and ribs, in which the mouldings of the supports were continued, their lines being repeated with the desirable emphasis and lightness.

The walls of the nave were simplified and improved by the omission of the galleries. The fourfold horizontal division, retained from the Norman style by the early Gothic, had introduced an upper story, which, while it was rarely used, cramped the development of the body of the church, greatly curtailing the height of the side aisles, and crowding the triforium and the clerestory windows. By giving up the galleries the aisles assumed their due height, and space remained above them in the nave for a more ample triforium and for larger clerestory windows.

Conformably to the Gothic system of memberment, the windows of the clerestory, which had previously been almost entirely without ornament, were provided with traceries. At first, as in the Cathedral of Bourges (*Fig. 314*), a number of adjoining openings were connected by a single archivolt, in the tympanon of which was pierced

a small rose-window. This was afterwards enlarged as much as the space would permit, while the remaining corners of the wall were so cut out that only a framework of tracery remained, and the vertical supports between the windows were reduced to mullions. This advance seems to have been first made in the Cathedral of Rheims.

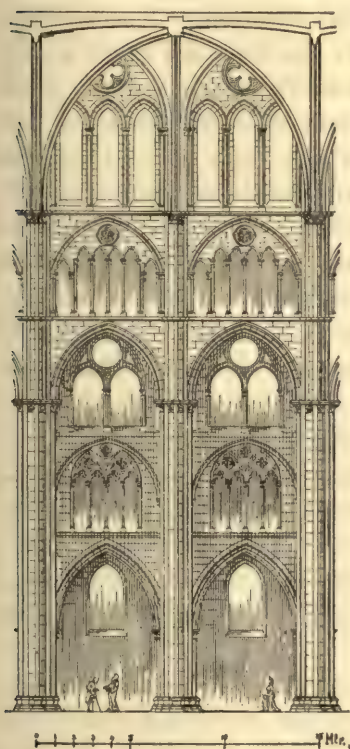


Fig. 314.—System of the Cathedral of Bourges.



Fig. 315.—System of the Cathedral of Amiens.

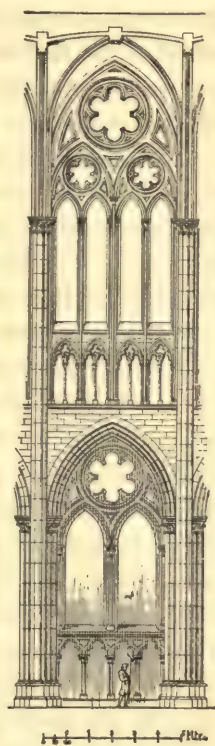


Fig. 316.—System of the Nave of the Abbey Church of St. Denis.

Finally the same system was duplicated in each group: four pointed-arched windows, three rose-windows, the corresponding openings in the corners being so combined in one compartment that no unmembered surface of the clerestory wall remained. This was the case in the Cathedral of Amiens (*Fig. 315*) and the Abbey Church of St. Denis (*Fig. 316*). The pointed arches of the windows were

decorated with cusps, as in the *Sainte Chapelle*. The design of the traceries thus resulting could not be improved upon by the super-elaboration of the geometrical lines in the later structures.

The success attained by this arrangement of the windows, by their effective traceries, and especially by their magnificent stained glass, led to a further development of the triforium. The principal mullions of the windows were made to rise from the lower string-course of the triforium, the openings of which corresponded to those of the clerestory. A certain organic connection between the two upper horizontal divisions of the nave was thus effected, even in those cases where the windows of the triforium were much cramped, or closed entirely by panels, because of the outer lean-to roof of the side aisles. In some cases the difficulties of this construction were avoided by the adoption of a system of saddle-roofing, which may perhaps be regarded as too great a concession to the effect attained in the interior through the multiplication and extension of the apertures. It cannot be denied that the enlargement of the windows, which appears to have been first attempted in the *Abbey Church of St. Denis*, greatly increased the lightness of the construction and the brilliancy of the illumination, while relieving the triforium from the disadvantages inevitably attending the use of blind windows. Still, notwithstanding the logical consequence of this step, the technical difficulties presented by its execution were too great to allow of its extension beyond the choir.

The emulation of the architects, favored by the unparalleled success of the style, led to a continual increase of the dimensions and of the comparative heights. The naves of the two chief edifices of Normandy,—*St. Étienne* and *Trinité* at *Caen*,—had been but 15 and 18 m. high, respectively. That of *Notre-Dame* at *Chalons* was 21 m. ; of the *Cathedral of Laon* 25 ; that of *Sens* 27,—these not equalling in height twice the width of their plans,—a proportion which the 32.5 m. of the nave of the *Cathedral of Chartres* but slightly exceeded. The nave of *Notre-Dame of Paris*, only 11 m. broad, reached a height of 32 m., nearly three times the former dimension ; and this proportion was even surpassed by the 35 m. of the *Cathedral of Rheims*, the 39 m. of *Amiens*, and the 44 m. of *Beauvais*,—the last of which was

rivalled in this respect by no other building of France: its early fall having been a warning to subsequent designers.

As this exaggeration of the vertical dimensions was accompanied by a resolution of the wall into isolated supports of daring attenuation, the builders were obliged to have recourse to every possible constructive expedient in order to meet, from without, the side-thrust of the vault. The serious character of this task is evident in the important development of the abutments, which, in striking contrast to the slightness and perforation of all the other masonry, had been much increased in mass, while restricted in architectural memberment. The buttresses were at first but rarely decorated with tracery in relief, with pointed gables, or with corner pinnacles, being simply diminished by a number of inclined steps, which, like the similarly inclined window-sills, were better adapted to the requirements of the rainy North than were the horizontal surfaces of classic cornices. A plain gable roofing commonly formed the termination of the buttresses, this position being, in exceptional instances, occupied by graceful miniature towers, decorated with tracery in relief, or so perforated as to provide a standing-place for a statue.

The same simplicity is at first observable in the flying buttresses, although in these a certain graceful slenderness naturally resulted from their constructive functions, as well as from considerations connected with the lighting of the interior of the edifice. At times the gutter running upon the back of these abutments was supported by tracery; or the inner end of the arch, adjoining the impost of the vault, was placed upon a small column which rose from the outer wall of the triforium. In three-aisled churches a single flying buttress was generally thought to be sufficient, but a second was occasionally placed above it to uphold the timbered roof and to receive the gutter (*Fig. 317*). In five-aisled edifices, where a second and lighter flying buttress was required above the outer supports, four arches, at least, were necessary (*Fig. 294*).

A somewhat more elaborate decoration was devoted to the choir, the many chapels of which were of an especially imposing effect upon the exterior. The greatest advance in this connection was the adoption of a polygonal, instead of a semicircular plan, for the choir itself, the surrounding passage, and the radial chapels. The end

walls of the transept, which commonly were opened by grand portals, were also improved by the introduction of large upper windows, frequently of a circular form, and by a more elaborate treatment of the corner buttresses. In some cases, as for instance in the design of the Cathedral of Rheims, these terminating walls were developed into real façades, like that of the western front, the two chief abutments becoming towers. As

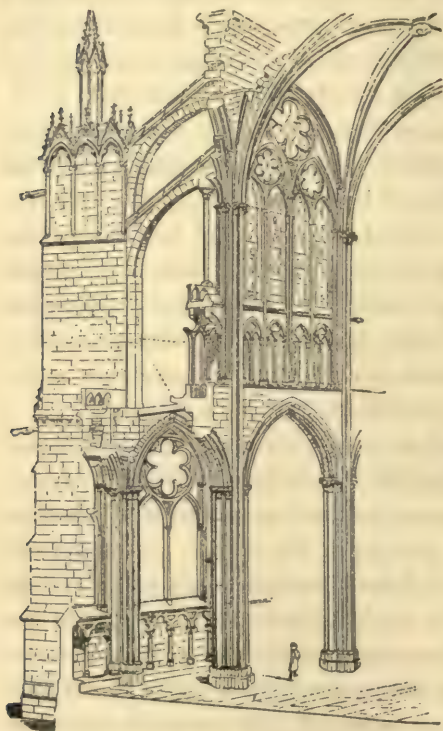


Fig. 317.—System of Abutments of the Nave of St. Denis.

a central tower was also placed above the intersection of transept and nave, this multiplication, if it had been carried out, would have given to the structure a certain similarity to the Romanic cathedrals and abbey churches of the Rhenish provinces. Fortunately it was soon seen that this arrangement was impracticable: even the two towers of the chief façade have been but rarely completed, and a group of seven, designed in the Gothic system, would have been wholly out of the question.

The chief attention was devoted to a rich and imposing elaboration of the façade. That of Notre-Dame in Paris is typical of this phase of development, that of the Cathedral

of Rheims perhaps even more successful (*Fig. 318*). Three grand portals, the splayed sides of which project as far beyond the thickness of the wall as do the buttresses of the towers, entirely occupy the lower part of the front. The pilaster corners of the Romanic portals are here reduced to narrow strips, while the place of the columns is taken by rows of statues, the canopies

above these corresponding to the former capitals. Figures are placed around the soffit of the arch in deep scotias, which contrast strikingly with the round mouldings so prominent in the Romanic

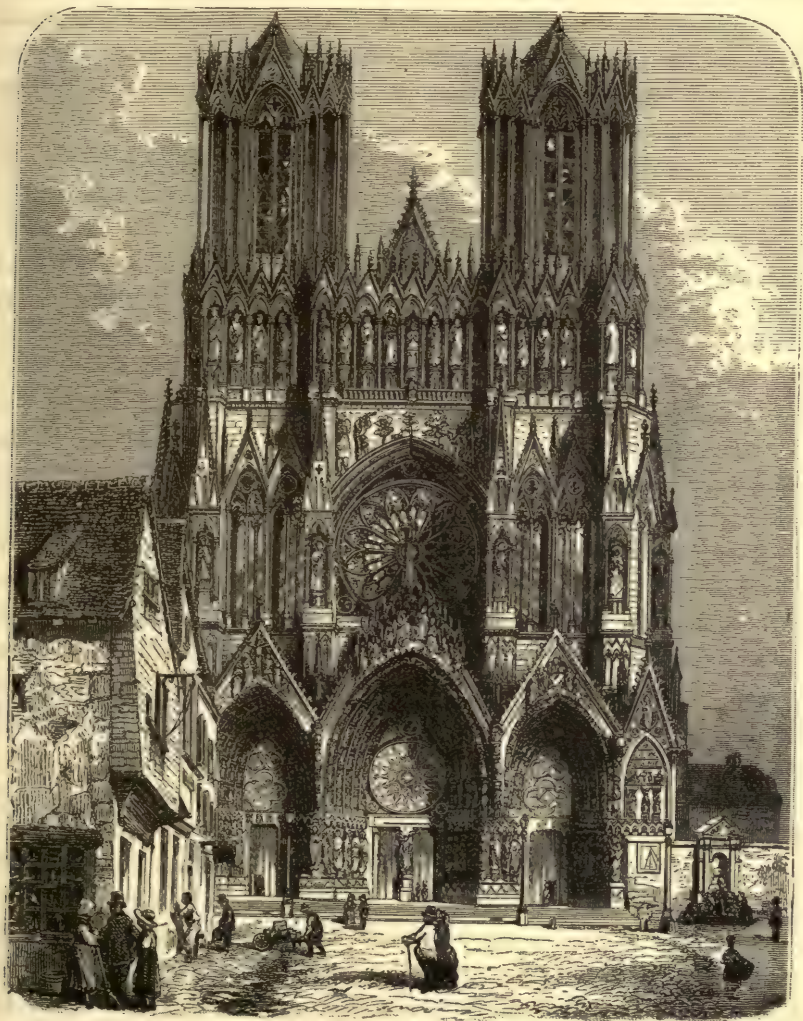


Fig. 318.—Façade of the Cathedral of Rheims.

gate-way. Dozens of these statuettes, seated and upright, are disposed above and beside one another, separated only by bracket

projections which serve both as canopies and as supports. The many figures, intended to represent the host of martyrs and saints, render the composition unpleasantly crowded, and the forward inclination of those near the summit of the arch gives a most inorganic character to the entire architectural framework. The small figures of the tympanon sculpture are generally confused and unsatisfactory in effect, although they are decidedly preferable to tracery in relief, such as that above the doors of the Cathedral of Rheims. The roofs of the portals are masked by gablets, which are decorated with figures or tracery, besides being provided upon the edges with crockets, and terminated by finials.

Above the portals there is either an imposing horizontal row of tabernacles and statues extending across the entire façade, or the windows follow without this intervention: in the towers narrow slits, and in the nave a large rose-window, divided by tracery of much better effect than the radial columns of the round windows of the Romanic style. A second frieze of tabernacles surrounds the upper part of the square tower; above this rises the richly decorated octagon of the belfry, the pinnacles and finials of which mask the juncture of the spire. In the few cases where the entire tower was completed, it is of a majestic as well as a rich and elegant effect. The ornamentation, which at first had been comparatively limited, as in Notre-Dame at Paris, was increased at Laon and Amiens, until, in the façades of the Cathedral and the Church of St. Nicaise at Rheims, and in that of St. Urbain at Troyes, the ornamental details became almost too predominant.

The highest development of French-Gothic was reached during the reign of Louis IX., and may, on the whole, be said to have been maintained throughout the entire thirteenth century. The subsequent changes were by no means advantageous. The political circumstances of the country cannot be held responsible for this retrograde movement, for the miseries of the English war did not begin until 1336, and the insurrections and pestilences of this period interfered but little with the architectural activity. Favorable occasions and rich patrons still existed, though their furtherance was rather directed towards the erection of secular buildings; and during the latter half of the century, art was greatly encouraged by

Charles V., A.D. 1364 to 1380. The cause of the decline is rather to be found in the inevitable reaction from the great efforts of the thirteenth century: an artistic exhaustion succeeding the enthusiastic activity of the previous age. Furthermore, the most important tasks had been already accomplished; the great cathedrals had been so far advanced that only the work of completion remained,—a work which is always less attractive and suggestive than that of original creation. And, finally, the capricious tendencies which had become more and more prominent towards the close of the thirteenth century,—instance the Cathedral of Séz (Fig. 319),—had impaired the serious conception and the pure taste of that period, by the attempt to improve upon an architectural system, already perfect in construction and design, by exaggerating the characteristic features, and by overloading the architectural framework with an inorganic ornamentation.

In the completion of the earlier edifices many of the vaults of the nave and most of the façades and towers were executed during the fourteenth century. As to the former, a harmonious juncture with the vaults of the choir was generally effected; as to the latter, however, the artistic excellence of the Cathedral of Rheims was never again attained, notwithstanding the far greater expenditure and elaboration. Noteworthy innovations resulted in those cases where the work of the fourteenth century was as important as it was in the cathedrals of Meaux, Senlis, Châlons-sur-Marne, Toul, Tours, Bayeux, Evreux, and Coutances, in Northern France, and in those of Clermont-Ferrand, Limoges, Beziers, Narbonne, in St. Maximin near Marseille, and St. Nazaire at Carcassonne, in the Southern districts. By far the greater part of the Cathedral of Arras, which has been almost entirely destroyed, of that of Troyes, and of the Church of St. Benigne at Dijon, are referable to the fourteenth century. The chapels of the Virgin frequently added to the larger churches,—as to the Cathedral of Rouen, A.D. 1302 to 1360, and to the Collegiate Church at Mantes,—by their size and importance gave occasion for an extremely lavish and elegant treatment. Entirely new ecclesiastical edifices were rare during this epoch, the most important being the Abbey Church of St. Ouen in Rouen (Figs. 320 and 321), founded in 1318, the choir of which was completed in 1339. Its nave was,

however, not begun before the fifteenth century, and work was not commenced upon the façade until 1515. To the earlier age belongs also the Church of the Celestines at Paris, completed in 1370, once remarkable for its many monuments, but destroyed during the Revolution; also the Convent Church of St. Bertin at Saint Omer, begun



Fig. 319.—System of the Cathedral of Séez.

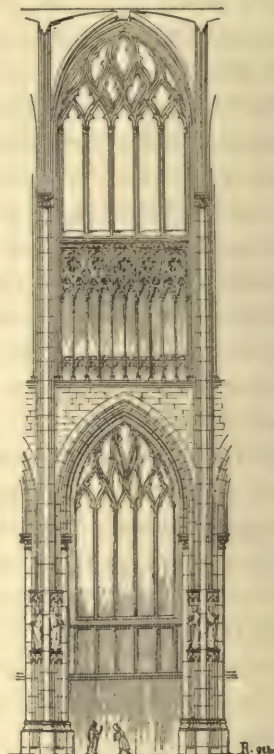


Fig. 320.—System of St. Ouen at Rouen.

in 1330. In Southern France the Church of St. Michel-ès-Liens at Limoges, and the cathedrals of Mende, Bazas, and Rodez, are referable to the second half of the fourteenth century.

The vertical principles of design, already appearing in the slender proportions of all the supports, and in the memberment of the piers corresponding to the ribs of the vault, had come to be recog-

nized as the most important characteristic of the Gothic style, both in general composition and in detail. The supports had hitherto been treated as a bundle of boltels, the separation of which from the vaulting ribs of pear-shaped section was marked and even emphasized by the forms of their capitals. These boltels were now



Fig. 321.—Interior of St. Ouen at Rouen.

assimilated as much as possible to the ribs. Their common base was given up, the support rising from a polygonal socle, as a loose aggregate of independent roundels. The vaulting posts became more and more slender and reed-like, while their capitals were similarly diminished in size, and at last omitted altogether. The transition from the supports to the ribs became uninterrupted, and

the section of the former was transferred to the latter. The predominance of verticalism was thus carried to its extreme logical development.

The same tendencies made themselves evident in the treatment of the windows, which were enlarged as much as possible. The clerestory windows were now generally connected with the openings of the triforium, the memberment of which was the same, while the rear wall, if possible, was opened to the light. Following the principle adopted in the piers of the nave, the mouldings of the jambs were made of the same profile as the tracery, from which they were not separated by capitals. The tracery itself was no longer limited to the regular forms previously employed. The place of the rose-windows was taken by a complicated arrangement of segmental lines, the endeavor of the designer being to produce the greatest possible variety. A wavy form, resembling a tongue of flame,—whence the term “flamboyant,”—was introduced shortly before the end of the fourteenth century, and soon became predominant. The changes which affected the memberment of the windows were of the greatest importance to the general design, inasmuch as these forms were extended over all the wall surfaces as an ornamentation in relief.

This overloaded system of decoration was developed chiefly upon the exterior, where the architectural framework was more and more hidden by balustrades, gablets, pinnacles, etc., all of which assumed the soft and flowing lines of the flamboyant tracery. The more the designers endeavored to surpass previous works by the elaboration of such an ornamentation, the less attention did they devote to serious constructive problems. This decadence kept pace with the gradual degradation of mediæval ideals.

Ecclesiastical architecture declined under these conditions, but the light and graceful style of the later period was well adapted to the development, or at least to the decoration, of secular buildings. The fortress-like palaces did not permit the employment of the organic system of the earlier Gothic construction in the towers of round or of polygonal plan with turrets at the corners, in the lower stories, the wooden ceilings, etc. During the later period, when the ornamentation was rather an addition to the construction than a

natural growth from it, every wall surface was treated like a screen, and covered with an elaborate decoration.

The contrast was striking between the magnificent chapel of Louis IX. and the palace itself, which once occupied the place of the present Palais de Justice in Paris. The royal dwelling consisted of a complex of apartments dating to various periods, and, with the exception of the four-aisled hall built by Philip IV., seems to have been of no monumental importance. After the middle of the fourteenth century the building no longer served as a residence. No greater significance in artistic respects is to be ascribed to the castles of the counts of Champagne at Troyes and Provins, to the castle of the counts of Poitou in Poitiers, or to that of the dukes of Burgundy at Dijon. The same is the case with the residences of the archbishops and bishops, in which the principal hall was generally of two aisles, with a simple range of columns in the longitudinal axis. Even the papal palace of Avignon, before the middle of the fourteenth century, was an insignificant structure.

It was not until the reign of Charles V. that the old citadel of the Louvre was raised to the dignity and artistic importance of a palace (*Fig. 322*), and that the example set by this work was followed in a series of imposing seigneurial constructions. The fine staircase of the Louvre, the work of Raimond du Temple, was greatly renowned during the century and a half which preceded the entire reconstruction of the building by Francis I. Still larger and more magnificent was another creation of Charles V., the Hôtel Solennel des Grands Ébattements,—commonly known, from the adjoining church, as the Hôtel de St. Paul,—which was famed for the rich decorations of its halls with sculptures, mural paintings, and stained glass, and for the lavish furnishings of the chambers of the king and queen, consisting of ornamented windows, chimney-pieces, panellings, etc. Unfortunately the early destruction which befell the buildings of Charles V. was shared by most of the palaces of the French nobles, such as Pierrefonds (Pierre-fonts) near Compiègne, Castle Creil upon an island of the Oise, etc. Most of the extensive convent buildings of the fourteenth and fifteenth centuries were destroyed during the French Revolution. Town-halls were rare in France during the Middle Ages, even Paris possessing none before 1357, in which year

a dwelling-house was adapted for the purpose. The civic edifices of the North were of somewhat more importance in artistic respects, though by no means equalling those of the Netherlands and of the German Hanseatic and imperial cities.

During the earlier part of the period private dwellings, with but few exceptions, were built of nogging. After the introduction of stone for their construction they generally imitated the forms of the

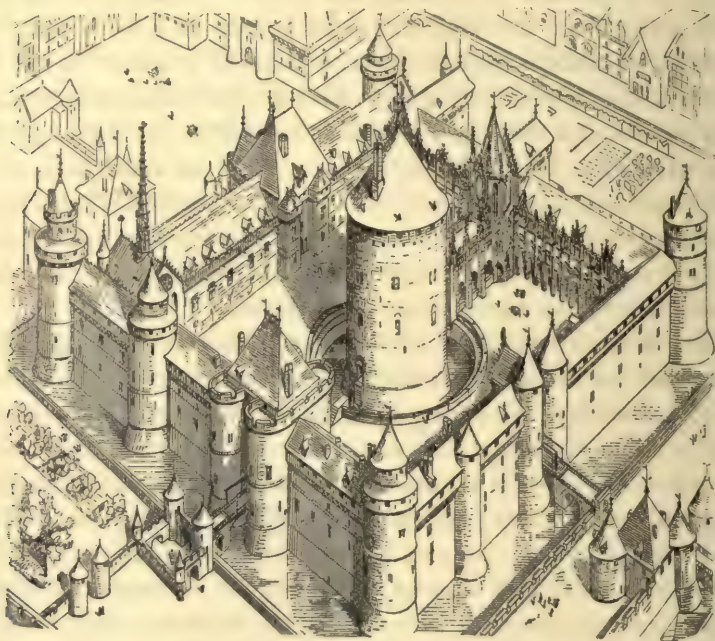


Fig. 322.—The Louvre of the Time of Charles V., according to the Restoration of Viollet-le-Duc.

fortress-like palaces. The celebrated house of the citizen Jacques Cœur at Bourges, a patrician dwelling of exceptional size, still remaining in an almost perfect state of preservation, is referable to the middle of the fifteenth century, and shows how readily the declining Gothic style then lent itself to the decoration of such buildings. The former want of unity in the artistic design,—resulting from capricious innovations on the one hand, and from archaistic retention of primitive traditions on the other,—was only to

be overcome by the neglect of the constructive principles, and the employment of the characteristic forms of the style as a mere decoration.

On the whole, it may be said that, both in architectural activity and performance, France was inferior to the neighboring countries during the fourteenth and fifteenth centuries. While the French suffered from a reaction after the phenomenal exertions of the previous ages, other nations, having had little part in the establishment of the style, took up its extension with fresh vigor. Having, moreover, already provided the buildings which were most imperatively required, the Gallic race followed the natural law of an earlier decline, leaving to others the task of further development.



Fig. 323.—View of the Cathedral of Gloucester.

THE EXTENSION OF GOTHIC ARCHITECTURE.

IN contrast to France, which, during the development of the Gothic style, had displayed an entirely independent creative activity, the other nations of Europe,—with exception of those of the Byzantine East,—remained dependent and receptive. Some of the races of France itself had but slowly and reluctantly accepted the new system which had been determined in the heart of the country, and it is not surprising that foreigners were even less inclined to an immediate and unconditional adoption. The extension of the Gothic was rendered more difficult by the national character which the Romanic style had assumed in the districts bordering France, and by the great dissimilarity of the native civilizations. Even when these hinderances were overcome and the new system fully introduced, the original differences could not fail to impress distinctive peculiarities upon the architecture of the different coun-

tries. These peculiarities, it is true, were not so great as those which had obtained during the Romanic epoch, at least between the Rhenish countries and the Provence; but they were sufficiently prominent to clearly distinguish the Gothic styles of England, Germany, and Italy from that of France.

ENGLAND.

England* having, for a century previous, been dependent in artistic as well as in political respects upon one of the provinces of France, was naturally the first to adopt the new style. The relations to Normandy, so decisive in architectural respects during the ages succeeding William the Conqueror, were, however, at this period somewhat less intimate. Normandy itself, immediately adjoining the districts in which the Gothic had first made its appearance, and afterwards altogether united with the Ile de France, adopted the style more unconditionally than was possible beyond the English Channel, where at this period the Norman and Anglo-Saxon elements were being blended into a national unity.

During the twelfth century only slight and isolated traces of the new architectural system appeared in England. The first pointed arches, limited to the arcades connecting ranges of columns, were those of the Cistercian churches of Kirkstall, Buildwas, Fountains, Furnep, and Byland, referable to the second half of the twelfth century. It may hence be assumed that the elements of the Gothic style had been introduced into England by those monks of Citeaux who left their native country about the year 1150. Still, it is to be borne in mind that the isolated appearance of pointed forms is not in itself sufficient indication of a Gothic design, since these are to be recognized at Autun and Vezelay in Burgundy, long before the actual establishment of the new style. Moreover, it is evident from the appearance of pointed arches in the Church of the Benedictines

* J. Britton, *Cathedral Antiquities of Great Britain*. London, 1835.—The Same, *Architectural Antiquities of Great Britain*. London, 1835.—E. Sharpe, *Architectural Parallels, or Views of the Principal Abbey Churches in England*. London, without date.—B. Winkles and Th. Moule, *Architectural and Picturesque Illustrations of the Cathedral Churches of England and Wales*. London, without date.—Hall, *The Baronial Halls of England*. London, 1858.

at Malmsbury, in that of the Augustines at Cartmel, and in the portico of the Cathedral of Ely, that the determining influences were not exclusively derived from Burgundian Cîteaux. This is corroborated by the Church of the French Knights of St. John in London. The older parts of this concentric structure, consecrated in 1185, show further indications of the new style, notably in the ribbed vaults and in the clustered columns.

The only English building of the twelfth century which is known with certainty to have been designed by an architect of Northern France, well acquainted with the chief features of the Gothic style, did not display any advance beyond the transitional forms. The reconstruction of the choir of the Cathedral of Canterbury, which had been destroyed by fire in 1174, was intrusted to William of

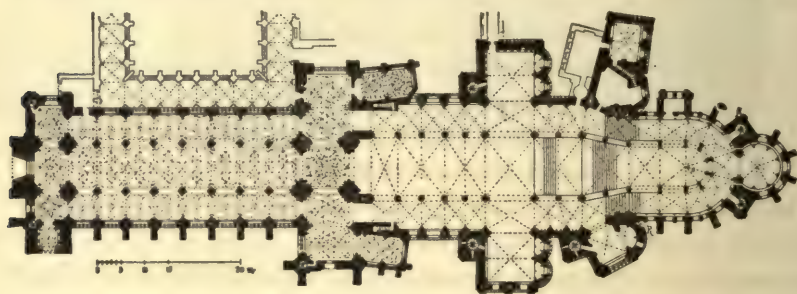


Fig. 324.—Plan of the Cathedral of Canterbury.

Sens, whose architectural skill had without doubt been brought to the notice of the canons of Canterbury through Archbishop Thomas à Becket, who had taken refuge in Sens shortly before his assassination in 1170. The Choir of Canterbury (*Fig. 324*), built between 1175 and 1185, shows distinct reminiscences of the Cathedral of Sens (*Fig. 299*). The architect was obliged, however, by the existence of two earlier towers, to deviate from his model by diminishing the width of the chancel,—a considerable and by no means advantageous change. From the details of the elevation it is plain that the foreign designer did not long retain his functions of superintendent, the work being carried on by native masons, who betrayed in various ways their training in the earlier style.

Modest attempts to transform the Norman system were made,

early in the thirteenth century, in the choir of the Cathedral of Winchester, begun in 1202, and in the nave of the Abbey Church of St. Albans. In the choirs of the cathedrals of Lincoln and Worcester clustered columns, pointed arched arcades, and narrow pointed windows, became more prominent, and in the eastern part of the Cathedral of Salisbury, built between 1220 and 1258, the style known as the early English Gothic appears fully developed. The last-mentioned cathedral (*Fig. 325*), afterwards completed in the same style, is the most important of the structures of this class referable to the second half of the thirteenth century, among which are the Minster of Beverley, the choir of the Collegiate Church of

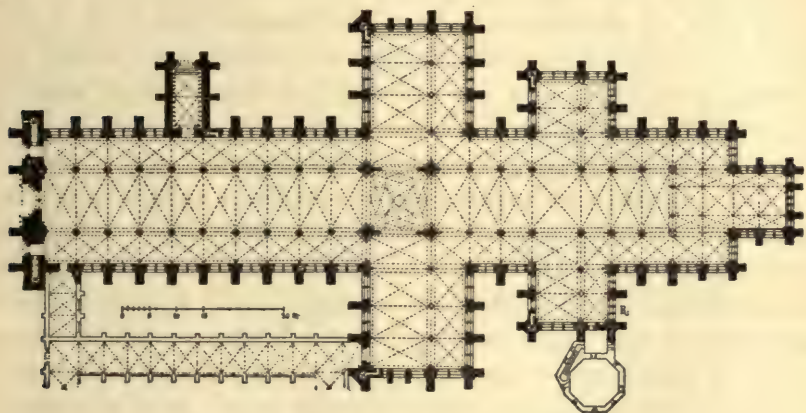


Fig. 325.—Plan of the Cathedral of Salisbury.

Southwell, the façade of the Cathedral of Wells, the transepts of the Cathedral of York, and portions of other buildings begun at an earlier period. This phase of development had been brought about through the influence of the French designer of the choir of Canterbury. Westminster Abbey in London, the last of the buildings belonging to this group, and the most magnificent edifice of England dating to the second half of the thirteenth century, was also constructed under French superintendence. Hence this church must be omitted in defining the character of the early English style.

In the arrangement of the plan the native designers, perhaps encouraged by the example of the before-mentioned Cistercian

churches, returned to the straight-lined termination of the choir, which the later English architects and those called from abroad, like Guillaume de Sens, had endeavored to conform to French models. Furthermore, the proportion of the length was greatly increased by making the chancel of the cruciform building quite as long as its nave, while considerably restricting the width of both. The choir was never five-aisled as in France, and the introduction of radial chapels was rendered impossible by the rectilinear termination. On the other hand, a second transept was added to the chancel, and a rectangular Chapel of the Virgin to the end wall. The entire length of the structure thus became excessive, the Cathedral of Salisbury (*Fig. 325*), for instance, being over 140 m. long, while the three-aisled body of the church is but 23 m. broad. The transepts were generally two-aisled, a lateral passage only appearing upon the eastern side; this one-sided arrangement sufficed to provide the spaces for altars, and was at least not visible to those who entered the building from the western front.

The supports were occasionally composed of several members: a somewhat heavier column surrounded by four slender monolithic shafts, which were attached to it only by the bases and capitals. In some cases these shafts were engaged to the kernel, in which arrangement four three-quarter columns alternate with as many shafts of smaller size situated between them. A plane fillet, corresponding to the surface of the junction at the back, was added also to the front of the three-quarter columns, which thus became of a pear-shaped section, similar to that of the vaulting ribs. Occasionally the kernel was omitted altogether, and the support appears merely as a combination of four columns. The bases are broad, and the capitals, resembling the Corinthian in general design, are provided with low and projecting abaci of rounded profile. The calyx is seldom ornamented; in those cases where foliage is applied to it the leaves are not treated in a realistic manner, like those of France, but are stiffly conventionalized, the tips being generally curled. The engaged columns were not continued as boltels to the impost of the main vault, the pier consisting of a group of members of equal height, connected only with the mouldings of the arches, the scotias of which were at times decorated with star-shaped flowers.

It was thus impossible to attain that organic unity of the constructive framework which is so remarkable in the Romanic cathedrals of the Rhenish countries, dating to the twelfth century, and in the Gothic buildings of France and Germany.

The triforium consisted of a range of narrow arcades, at times combined into groups by relieving arches (*Figs. 326 and 327*). It was elaborately ornamented, and often presented characteristic features,

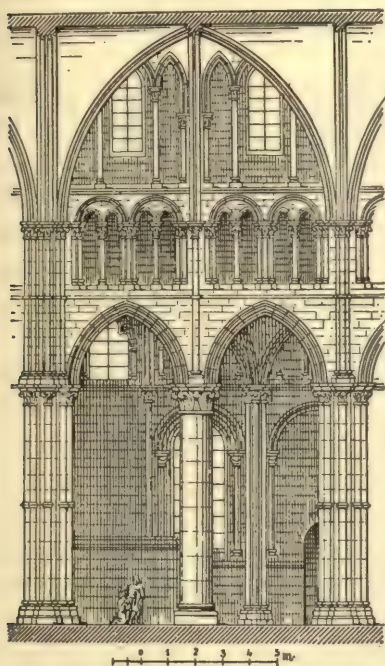


Fig. 326.—System of the Choir of the Cathedral of Canterbury.

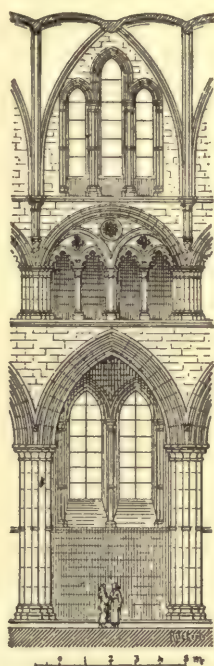


Fig. 327.—System of the Nave of the Cathedral of Salisbury.

the trefoil arch being adopted, or the intersecting arches of the Norman style being resolved into two arcades on different planes. The clerestory wall was generally opened by three pointed windows, that in the middle being of greater height. Traceries first appear in Westminster Abbey, where the French arrangement of the windows was imitated. The tracery was almost exclusively restricted, even at a later date, to the end walls of the choir and transepts and to

the western façade, in which latter fivefold pointed windows, occasionally in two stories, had previously existed. At the close of the period, mullions were introduced in all the windows, generally of forms entirely different from those of France. A decided preference was shown for intersecting arches, such as had been so prominent in the architecture of the Normans. Intricate traceries were thus developed at an earlier period even than in France, and these naturally led to an exchange of the columnar supports for a system of upright mouldings similar in section to those with which they were connected.

The ribs of the vault were supported upon consoles, or upon short vaulting-posts: these latter not resting upon the piers, but ending in the spandrels of the arches, or between the openings of the triforium, and being themselves supported upon brackets. The reticulate and stellar forms of vaulting, like the intricacies of window tracery, were employed in England even before they became customary in France. The first innovation which seriously affected the continental system of vaulting was the introduction of a rib in the longitudinal axis. The horizontal crown thus resulting rendered the construction entirely unlike the cupola-like compartments of the French arrangement, and caused the cross-vaults to resemble a barrel with lunettes. The subsequent multiplications of the side-ribs in the chapter-houses of polygonal plan led to the formation of the stellar-vault. This form, being more in harmony with the decorative and fantastic tendencies of the English Gothic than with the monumental and constructive character of that of France, was more generally adopted in the former country than in the latter. The lack of regular organism, and the want of perfect agreement between the constructive framework and the main lines of the decoration, resulting from this arrangement, were not held of sufficient weight to interfere with its adoption. The effect of the radial ribs was heightened by the vault being much nearer the eye than was the case on the Continent. The nave was always low, the 24 m. of the summit of the vault in the Cathedral of Salisbury being only exceeded by the 27 m. of the Cathedral of York and by the 30 m. of Westminster Abbey.

Striking as the differences thus are between the early Gothic

cathedrals of France and England in the interior, they are still more apparent upon the exterior. The narrowness and lowness of the aisles are especially noticeable in the latter country, this effect being increased by the small and comparatively flat surfaces of the roof,—often entirely hidden by battlements which give a fortress-like character to the entire building. The buttresses were slight, seldom



Fig. 328.—Western Façade of the Cathedral of Salisbury.

rising above the side aisles, and the flying buttresses, when employed at all, were as simple as possible. Thus the horizontal memberment of the structure was greatly emphasized. The most striking deviation from the French models is evident in the façades,—instance that of the Cathedral of Salisbury (*Fig. 328*). The low and insignificant portals appear to have been designed merely to meet the practical requirements, without reference to the entire front.

They are not rendered of importance in the composition, even in those cases when they are preceded by a portico—the so-called Galilæa. The enormous wall which rises above them entirely hides the roofs of the side aisles, and is even extended to the summit of the nave, which only in exceptional cases is treated as a gable. This façade is flanked by weak towers, which project beyond the width of the entire church, but scarcely rise above the front wall. The imposing effect of the façade towers of the Continent is thus but rarely attained. On the other hand, the heavy fortress-like tower erected above the intersection of transept and nave, of square plan and terminated by a horizontal cornice, is the more emphasized, being rendered of the greatest importance in the design by the excessive length of the building. Upon it depends, in effective concentration, the monumental dignity of the edifice,—this character being attained neither by the façade nor by the choir.

While the Gothic style in France required but fifty years for its full development, the early English was retained, with but slight alterations, for more than a century. England thus did not adopt the perfected Gothic until early in the fourteenth century, a period which in France marked the beginning of the debasement. Circumstances had not been more favorable for architecture on the north than on the south of the Channel. The war with the French, although carried on entirely upon the Continent, had drained the resources of the island, and was, moreover, of unfavorable issue to England. On the other hand, the national unity was increased by this war, which did much to assimilate the Norman and Anglo-Saxon elements. The social amelioration thus brought about was so great that, notwithstanding the losses which had been entailed upon the country, sufficient energy and material means were still forthcoming to sustain an architectural activity of considerable importance. The ornamentation was so lavish in the English Gothic, between 1300 and 1380, that the style of this period fully deserves the name Decorated which is commonly applied to it.

Most important among the works of this class is the Cathedral of Exeter, begun early in the century and completed in 1370. Contemporary with this is the greater part of the Cathedral of Lichfield (*Fig. 329*), the construction of which was continued even into the

fifteenth century. The western half of York Minster is also of the decorated style ; its eastern side was built a hundred years later, and the transept is early English. The most elaborate ornamentation is observable in the central portion of the Cathedral of Ely (*Fig. 330*), built after 1322, otherwise of the Norman style ; and in the choir of the Cathedral of Wells, referable to the second half of the fourteenth century. Many older structures were completed or restored

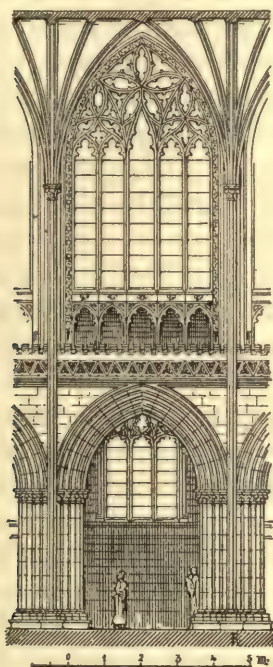


Fig. 329.—System of the Choir of the Cathedral of Lichfield.

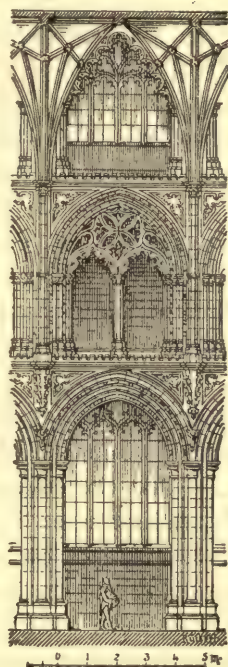


Fig. 330.—System of the Choir of the Cathedral of Ely.

during this period, which was productive of a great number of chapels, chapter-houses, etc.

In the Decorated style the plan retained its excessive length, the straight-lined termination of the choir, the one-sided transept, the massive tower above the intersection of transept and nave, and the screen-like façade wall,—in short, all the most prominent features which have been noticed in the early English. But the organ-

ism received a new life, the harshness of the contrasts was mitigated, the construction and the ornamentation being blended to a more perfect harmony. An important improvement is noticeable in the treatment of the windows, the greater elaboration of which had been commenced in the preceding period. The simple grouping of lancet-shaped windows was discontinued, and broad openings with equilateral or even surbased arches, provided with mullions, took their place. The geometrical lines of the tracery, derived from the French, were soon given up in favor of intricate and varied, at times even whimsical, forms. Gentle curves, with many cusps and trefoils, were employed by preference, much attention being devoted to an arrangement whereby the glazed apertures were approximately equal in size. This resulted, especially in the large windows of the end walls, in great unity of design and magnificence of general effect. The engaged shafts of the jambs were soon exchanged for mouldings of the same profile as the tracery. The Flowing style, of which all these features are characteristic, seems to have been developed at an earlier period than either the French Flamboyant or the German Fischblase.

The successful effect of the tracery led to the employment of its forms for triforiums and balustrades, as well as, in relief, for wall surfaces, so that the entire ornamentation of the edifice became directly dependent upon it. The pointed arches themselves were occasionally made of curves of contrary flexure, and even the ribs of the vault became similar to tracery. The more the entire structure was overgrown with this decoration, perforated or in relief, the more the constructive framework was simplified, until at last the artistic importance and effect depended solely upon the ornamental details.

Such excess could naturally be of but short duration. The gentle curves of the Flowing style were little in harmony with the English character, and the contrast which they presented to the stiff forms of the Norman and early English was most painfully felt in those cases where the work of the fourteenth century was placed in juxtaposition to that of an earlier period, as, for instance, in the Cathedral of Ely. The change from comparative perfection to absolute debasement was so immediate that a reaction was inev-

itable. This reform was directed, however, less against the elaboration of the tracery than against the sensual elements of the design, and, in particular, the weak degeneration of the forms.

This reaction became evident, towards the close of the fourteenth century, in the development of the so-called Perpendicular style, in which the English Gothic returned to the rectilinear character of the constructive members and ornaments. This system of design corresponded well with the natural traits of the Britons, as is plainly seen in the plans and elevations, not only of the early English and Norman, but of the Anglo-Saxon buildings. Even as early as 1360 boltels began to grow through the tangled mass of the tracery, in the same way as the curved decorations had previously been applied upon the straight-lined mouldings. Perpendicularism did not, however, become the leading principle until the age of Bishop William of Wykeham, who directly furthered the erection of a large number of buildings. The restoration of the Cathedral of Winchester (*Fig.* 331), undertaken under his supervision in 1393, gives a fixed date for the commencement of the Perpendicular style, which agreed so well with English ideas that it was employed almost exclusively until the close of the Gothic period, late in the sixteenth century, and has even become typical of the English Gothic designs of the present age.

Still, the horizontal lines continued almost as important in the composition as the vertical. The effect of the triforium galleries and the window-sills was emphasized by the introduction of horizontal bands connecting the slender mullions, so that the predominance of the uprights was greatly diminished; instance the choir of the Cathedral of Gloucester (*Figs.* 323 and 332). In the windows, on the other hand, the jambs were not only continued vertically to the soffit of the main arches, but the perpendicular members were increased by the introduction of super-mullions, rising from the summits of the smaller arches of the lower tracery. To the framework thus resulting further cusps were added, so that the entire window was formed by a combination of vertical trefoil arches. The rectilinear tendencies of the design led to the adoption of a new form of the arch, both for the window openings and for the arcades: the arcs being stiffened to straight lines, with an angular

apex. Furthermore, the ribs of the vault, which had already been assimilated in character to the tracery, were treated as straight and radial bars, connected, like the mullions, with trefoil cusps, and usually made to intersect with the crown rib in an entirely inorganic fashion.

This system of design, however conformable to the British character and taste, was certainly not favorable to the artistic effect

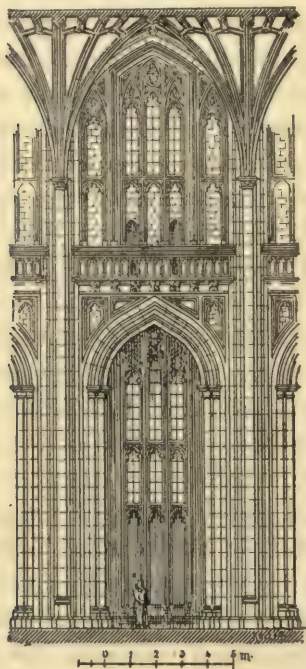


Fig. 331.—System of the Nave of the Cathedral of Winchester.

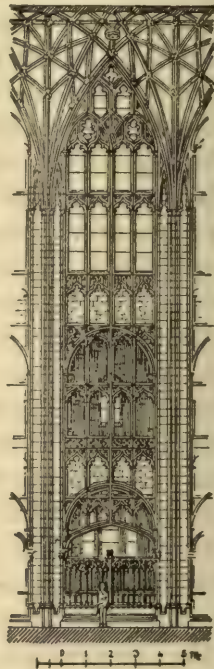


Fig. 332.—System of the Choir of the Cathedral of Gloucester.

of cathedral buildings. Its best results were produced in smaller structures, such as the chapels of the Virgin, palace oratories, and secular halls in colleges and castles. Even in the thirteenth century the chapter-houses had become of importance. Such polygonal chambers as those of Lichfield, Salisbury, York, Lincoln, Westminster, and Wells are of a direct historical interest, inasmuch as they led to the development of the stellar vault. In the Chap-

ter-house of York the vaulting ribs had been filled in with boards instead of with masonry, and the construction of the ceiling in wood became more and more general, even in important edifices; witness the octagon of the Cathedral of Ely and the nave of the Cathedral of York. The extremely elaborate vaults of the decorated and perpendicular styles, such as those of the Lady chapels of many cathedrals and of the cloister of Gloucester, were of a pleasing effect. An even greater importance is to be attached to the timbered constructions of Wykeham's chapter-houses and chapels at Winchester and Oxford, and especially to the most rational roofs and ceilings of Westminster, and of other halls of English palaces. Without demanding an increased thickness of the walls, these roofs attained a lightness and elegance denied to the best systems of vaulting, being, moreover, capable of a fine decorative elaboration in carving and color. Open timbered roofs of this kind have consequently continued in use until the present day, and indeed the English Gothic, because of the just relations of the horizontal to the vertical memberment, is particularly well adapted for imitation in the secular architecture of modern times.

Ireland and Scotland were, in artistic respects, decidedly inferior to England. The first country had neither important buildings nor any architectural peculiarity; the second was entirely dependent upon the development of England. From the oldest Gothic buildings of Scotland—the Cathedral of Elgin, founded in 1223, and that of Glasgow, begun in 1240—down to the Abbey Church of Melrose, dating to the first half of the fifteenth century, there are but few deviations from the English types. It is only to be remarked that the Norman round arch was occasionally employed at a comparatively late date, that the stiff perpendicular style was but rarely adopted, and that, in the lavish decorations of the period of decadence, the relations of Scotland to France led to a predominance of Flamboyant over Flowing details. Such fantastic creations as the absolutely unsymmetrical Mortuary Chapel of Rosslyn, built between 1446 and 1480, would have been impossible in England.

GERMANY.

The Gothic style was not introduced into Germany* as early, or as completely, as into England. The reason of this is evident. England had no architectural traditions of its own to which it could cling, and after having received the Romanic style from beyond the Channel, it was but natural that it should give itself up without reserve to the influence of Northern France. Germany, on the other hand, possessed an indigenous style of great perfection, and was hence reluctant to relinquish its own artistic methods in favor of those of another country. The earlier types were retained with great tenacity. Even at the beginning of the thirteenth century buildings of the Romanic style were erected not only in remote and provincial districts, but even in the larger Rhenish towns. Instance the reconstruction of the Church of St. Castor at Coblenz, consecrated in 1208, and the transept of the Convent Church at Sayn, built after 1202. The native traditions were but slowly and unwillingly abandoned.

In the most advanced provinces, however, the intelligence of the builders had, during the Romanic period, been too fully awakened to permit them to ignore the constructive and decorative advantages of the Gothic system. The noble works of the French could not remain unknown; it was generally admitted that the civilization of the neighboring country was superior, in social as well as in political respects. The higher powers, both spiritual and temporal, saw plainly that it was necessary to model not only the ecclesiastical and secular institutions, but also the art and poetry of Germany, upon those of France.

* G. Moller, *Denkmäler der deutschen Baukunst*. Darmstadt, 1820.—G. G. Kallenbach, *Chronologie der deutsch-mittelalterlichen Baukunst*. München (1849).—G. Ungewitter, *Lehrbuch der gothischen Constructionen*. Leipzig, 1859. II. Auflage, 1875.—L. Puttrich, *Denkmale der Baukunst des Mittelalters in Sachsen*. Leipzig, 1836–1850.—C. W. Hase, F. Ewerbeck, O. Tenge u. A., *Die mittelalterlichen Baudenkmäler Niedersachsens*. Hannover, 1856–1883.—L. Hoffmann u. H. v. Dehn-Rotfelser, *Mittelalterliche Baudenkmäler in Kurhessen*. Cassel, 1856, etc.—W. Lübke, *Die mittelalterliche Kunst in Westphalen*. Leipzig, 1853.—F. Adler, *Mittelalterliche Backstein-Bauwerke des preussischen Staates*. Berlin, 1862.—R. Redtenbacher, *Leitfaden zum Studium der mittelalterlichen Baukunst*. Leipzig, 1881.

Still, greatly as the Germans desired to improve their architectural system by the adoption of new details from abroad, their national feeling was too strong for them to make such a striking demonstration of the force of French influence as the immediate and entire acceptance of the Gothic style would have been. No other nation was so slow in introducing the methods of design determined in the Ile de France. Almost a century elapsed after the building of the choir of St. Denis before the first truly Gothic structure was erected in Germany. Various compromises, however, began to be made towards the close of the twelfth century, so that a transitional period of over fifty years is to be distinguished in Germany,—wholly without a parallel in France or in England, where the change was effected within a single decade. So elaborate, so varied, and, above all, so rational, are the features characteristic of this period that the customary designation, Transitional Style, is fully justifiable, provided it be taken into consideration that we have here to deal with a phase of the development of German architecture alone, intervening between the Romanic and Gothic, and not with any consistent and universal transition between the two great styles.

The isolated introduction of Gothic elements is noticeable at times in the constructive framework, at times in the decorative treatment. The Golden Portal of Freiberg in the Erzgebirge, which is probably to be ascribed to the close of the twelfth century, displays, as well in its architectural as in its sculptural decoration, an acquaintance with the portals of the early Gothic style of France. Similarly, Gothic capitals, mouldings, vaulting ribs, etc., are employed, together with a constructive framework of the Romanic style. Innovations of greater importance were the adoption of the Gothic system of buttresses, and of pointed forms for arcades and vaults,—although these did not at first adhere strictly to the French models. Examples are the Church of St. Peter at Goerlitz, built between 1173 and 1194, with slightly pointed arcades, and the Cathedral of Brunswick, founded by Henry the Lion and consecrated in 1194. With the Romanic piers, walls, and windows of the latter is combined a pointed vault, not constructed according to the principles of French Gothic, but as a barrel-vault without

ribs and with lunettes. The case is similar with several churches of Brunswick and its vicinity, the designs of which were influenced by that of the Cathedral. The peculiarities of all these buildings seem due rather to Burgundian influences than to any direct imitation of the Gothic style of the Ile de France.

Circumstances were more favorable for the adoption of the Gothic elements in the Rhenish countries than in Saxony. In the former the preference for a polygonal termination of the choir had early led to the introduction of ribs in the vaults of the apse, and, in connection with this, to the employment of buttresses. The Cathedral of Treves, with its polygonal choir strengthened by abutments, dates from the years between 1152 and 1169, although the vaults were not executed before the two decades preceding 1212. Even before the close of the twelfth century the pointed arch appeared in the nave of the same building, as well as in several city gates of Cologne, in the reconstruction of the Cathedral of Mayence after the fire of 1191, and, combined with buttresses, in the churches of the Cistercians erected after 1190; the Nunnery of St. Thomas on the Kyll, and the Monastery of Heisterbach in the Siebengebiege. To this class belong also a number of older buildings in the transitional style, notably the Convent of the Cistercians at Otterberg in the Palatinate, the churches of Gelnhausen and Seligenstadt, and the Collegiate Church at Aschaffenburg,—all in the diocese of Mayence. Mention has already been made of the Church of St. Fides at Schlettstadt on the Upper Rhine, with its pointed arcades, built as early as the twelfth century.

Gothic elements occur more frequently after the beginning of the fourteenth century. They appear, in greater or less degree, in the parish churches at Andernach, Boppard, Bacharach, and Sinzig; more decidedly in the transept of the Minster of Bonn, and in the Church of St. Quirinus at Neuss, begun in 1209. The latter building, together with a prevalence of pointed arches in the arcades and galleries, has round-arched vaults and peculiar fan-shaped windows. A similar combination of round and pointed forms appears in the nave of the Church of the Apostles, completed in 1219, in that of the contemporary Church of Great St. Martin, and in the Church of St. Cunibert, built between 1200 and 1247,—all at Cologne.

Pointed windows are observable in the western part of the last-named building. The greatest advance is displayed by an edifice of the Upper Rhine—the Church of Sts. Peter and Paul at Neuweiler in Alsace—the nave of which might almost be termed early Gothic.

Thus a compromise was gradually effected by which the chief difficulties in the Romanic construction were avoided, and, in conformity with the taste of the period, the Gothic innovations were adopted. This compromise is best exemplified in three buildings

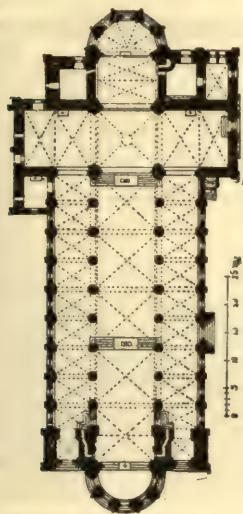


Fig. 333.—Plan of the Cathedral of Bamberg.

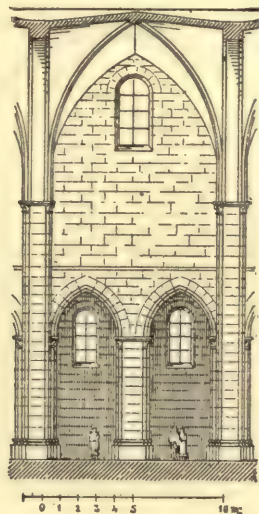


Fig. 334.—System of the Cathedral of Bamberg.

of Middle Germany, dating from the first half of the thirteenth century: the reconstruction of the Cathedral of Bamberg (*Figs. 333 and 334*), which, with exception of the later western part, was ready for consecration in 1237; the nave of the Collegiate Church of Fritzlar in Hesse (*Fig. 335*), commenced after the completion of the choir in 1200, and the nave of the Cathedral at Naumburg (*Fig. 336*). The design both of the plan and the exterior of these buildings shows a persistent adherence to the Romanic types. In the interior, also, the combination of six piers to form one compartment of the nave, according to the principle of the alternation

of round and square supports, is derived from the Romanic edifices of the Rhine, and the windows in the wall-arches of the vault, whether single or in couples, are round-arched. The arcades and vaults are pointed, and the proportions of height and width entirely altered. A certain hesitation is shown in the pointed forms of the arcades, and, in the Church of Fritzlar, in the relieving arches, by which they are grouped in couples. Moreover, the vaults are commonly without ribs. It is to be borne in mind that the ribbed vaults of the Cathedral of Bamberg are at least as late as the sec-

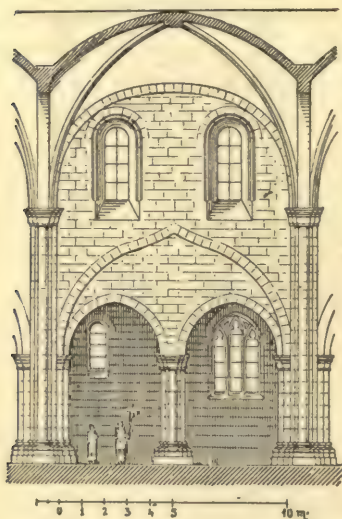


Fig. 335.—System of the Collegiate Church of Fritzlar.

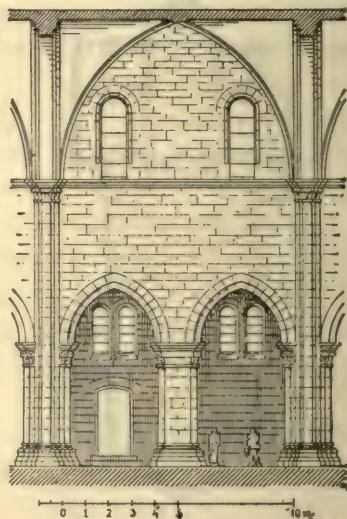


Fig. 336.—System of the Cathedral of Naumburg.

ond half of the thirteenth century, and may have been constructed at the same time with the western transept and the choir. In other buildings of this age, such as the nave of the Church of St. Sebaldus in Nuremberg, and the Minster of Basle,—exclusive of the Romanic portions near the portal of St. Gallus, begun in 1185,—the walls are divided by triforium galleries, those of the latter church being round-arched.

Westphalia holds a middle place between the Lower Rhine and Central Germany, on the one hand, and the North German Low-

lands, on the other. The cathedrals of Osnabrueck (*Fig. 337*) and Muenster (*Fig. 338*) are similar in some respects to the before-mentioned ecclesiastical edifices of Central Germany, at the same time clearly displaying the development of the individual peculiarities which had characterized the productions of this province during the Romanic epoch. The system of vaulting, which had here been adopted at an earlier age than in Saxony and Southern Germany, and especially the important innovation of equal aisles, necessarily led to simplifications well in accord with the existing conditions

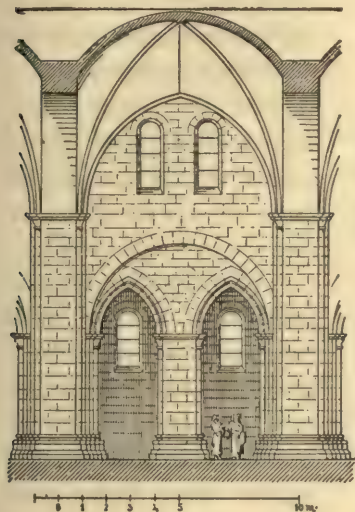


Fig. 337.—System of the Cathedral of Osnabrueck.



Fig. 338.—System of the Cathedral of Muenster.

of culture in the North, and with the brick and terra-cotta, the only available building materials. After the primitive basilical arrangement had been disturbed by the rectangular termination of the choir, and especially by the increased height of the side aisles, further alterations became necessary in the construction of the ceiling, on account of the impossibility of adapting the round-arched cross-vaults to the unequal spaces between the supports,—unless, indeed, the side aisles were to become of the same width as the nave. Only one attempt was made to cover the side aisles with bisected cross-vaults, similar to the bisected barrel-vaults of

Southern France. A much better expedient was found in the pointed arch, which was employed at a comparatively early period in the vaults of the equal-aisled churches of Westphalia. It was at first restricted to structures of smaller dimensions. These presented less difficulty to the builders, as yet inexperienced in the execution of vaults of large span, and more readily permitted a

break with the traditions than did the metropolitan churches. Unfortunately, in the most important of the works of this class, the Cathedral of Paderborn, it cannot be surely ascertained which parts are referable to the various periods of construction between 1068 and 1263.

The North German Lowlands, having been colonized partly by Westphalia and partly by Saxony and Brunswick, naturally received their architecture from these countries. The almost exclusive employment of brick in the construction, resulting from the lack of stone, gave, however, a peculiar character to the style.

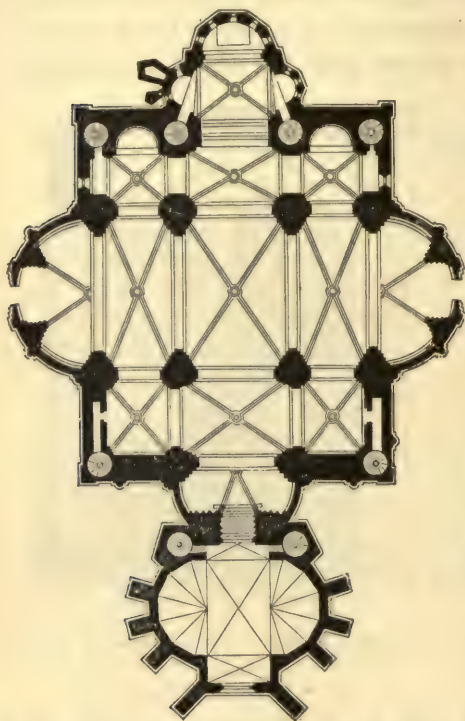


Fig. 339.—Plan of the Church of the Virgin on the Harlungerberge near Brandenburg.

The slow advance of colonization and civilization rendered it as impossible during the transitional as during the Romanic period for Westphalia to develop a monumental architecture of importance. Among the chief buildings may be mentioned the Church of St. Laurence at Salzwedel, now much ruined, the round-arched arcades of which appear to be of earlier date than the pointed vaults. Little information can be gained concerning the customary arrangement of

the ecclesiastical edifices of Brandenburg during this epoch from the Church of the Virgin, which stood upon the Harlungerberge near Brandenburg (*Fig. 339*), demolished in 1722 and known only by drawings. Its plan was exceptional, and was perhaps determined by that of the primitive church erected upon this site in 1136 by Pribislav, king of the Wends. In the provinces of the Baltic, the parts of the Cathedral of Ratzeburg referable to this age display the direct influence of the Cathedral of Brunswick, which had been built shortly before, while the Cathedral of Cammin and the Convent Church of Colbatz share the archaic character of the architecture of Brandenburg.

In all the last-mentioned churches, and in many other structures of this part of Germany, the predominance of the Romanic style is plainly evident, native traditions having been retained intentionally and by preference. The few Gothic elements show no systematic study of the French works, and appear only sporadically,—like foreign growths introduced into the great mass of the native vegetation through chance seeds scattered by the wind. Still, the country was not entirely without early and direct importations from France. These would most naturally have been received through the Cistercians, whose influence, however, has in historical respects been frequently overrated. This order, which had originated in France, in 1098, as a branch of Burgundian Cluny, maintained the connection with Cîteaux and its four oldest colonies—La Ferté, Pontigny, Clairvaux, and Morimond—and the French style might well have been at once introduced into Germany by this brotherhood. Nevertheless, it is certain that the Gothic was not employed by them at this time, as buildings antedating the development of this style appear in their first German dependencies; namely, Campen near Cologne, and Lutzell in Alsace, founded in 1122, Altenberg in Berg, A. D. 1133, Georgenberg in Thuringia, A. D. 1141, and probably also Ebrach (*Fig. 340*) and Heilbronn in Franconia, Maulbronn in Suabia, Waldsassen in the Upper Palatinate, and Heiligenkreuz in Austria. It appears that the French Cistercians, who in all things observed the utmost simplicity, and, especially after the construction of Cîteaux, favored rectangular choir terminations, surrounding them with small retired chapels for private devotion and castiga-

tion, did not take an active part in the Gothic movement, and consequently could not have been propagators of this style in Germany.

It is, however, impossible to deny that the architecture of Burgundy was of direct influence. In the Cistercian Church of Thennenbach near Freiburg in Baden, founded in 1156, the side aisles are covered with transverse barrel-vaults, very similar to those of Tournus; and in the Church of Bronnbach in Franconia, built between 1151 and 1200, the chapels of the transept have barrel-vaults, while there are bisected cross-vaults above the side aisles. Even the pointed vault of the nave of the same church, being destitute of transverse arches and ribs, closely resembles a pointed barrel-

vault with lunettes, and consequently betrays reminiscences of the same province. In the Church of Marienstatt near Hachenburg, built between 1243 and 1324, the Gothic style was at last fully adopted; but this was not due to the Cistercians, as by that time the strong current of influence had entered Germany from Northern France through another channel.

The increasing celebrity of the French cathedrals could

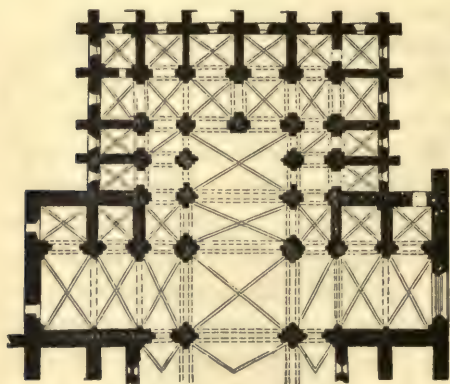


Fig. 340.—Plan of the Choir of the Church of the Cistercians at Ebrach, Franconia.

but excite in the Germans a desire to become better acquainted with these magnificent works, and to study them on the spot in order to imitate them directly, instead of merely introducing disconnected details into constructions otherwise Romanic. This imitation was at first limited to a small number of models, which are clearly recognizable in the copies. The beginning was made by the architect of the choir of the Cathedral of Magdeburg (*Fig. 341*), the plan of which, with the surrounding passage and the radial chapels, hitherto unknown in Germany, seems to have been suggested by that of the Cathedral of Soissons. This type was probably adopted at the instance of the founder, Bishop Albert II. of Magdeburg, who had

become acquainted with the edifices of the Ile de France while pursuing his studies in Paris. The choir of the Cathedral of Soissons, consecrated in 1212—the same year in which that of Magdeburg was begun—may have been selected because its radial chapels, differing in this respect from those of all other French cathedrals, were not of semicircular but of polygonal plan, thus agreeing well with the taste of the Germans. It is worthy of note that the architect of Magdeburg did not closely follow his model, inasmuch as he retained piers in the termination of the choir, did not fully develop the system of buttresses between the chapels, and did not entirely emancipate himself from Romanic forms.

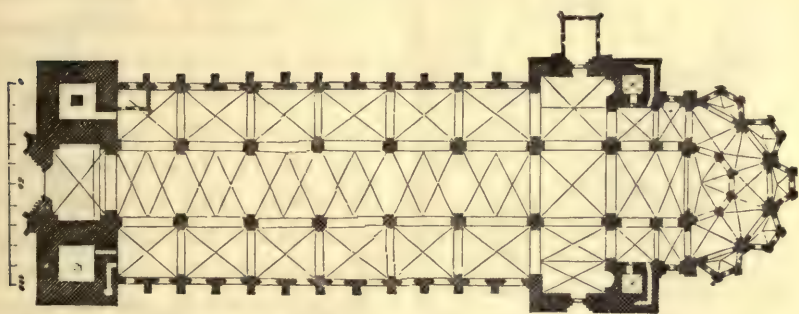


Fig. 341.—Plan of the Cathedral of Magdeburg.

It cannot be known in how far it was the intention of the artist to imitate the Cathedral of Soissons in the nave, as this was not executed until a later date. Similar features, however, appear in the nave of St. George at Limburg on the Lahn, consecrated in 1235, although the plan of this church, and especially the grouping of the towers, are still entirely Romanic. Even as the Cathedral of Magdeburg was influenced by that of Soissons, the Church of Limburg unmistakably shows, in the formation of the compartments, a dependence upon the early Gothic Cathedral of Noyon (compare *Fig. 342* with *Fig. 300*).

A far more faithful imitation of a French model appears in the Church of Our Lady at Treves, built between 1227 and 1243. This building, the first purely Gothic church of Germany, is, both in plan and elevation, directly dependent upon the Church of St. Yved

at Braisne near Soissons, built between 1180 and 1216. Some changes were naturally made in the general arrangement. The Church of Treves is a concentric structure, with a central vault resting upon four piers, surrounded by a narrow passage, and by polygonal chapels, five on each side (*Fig. 343*). This peculiar form did not result from native traditions, but from a duplication of the

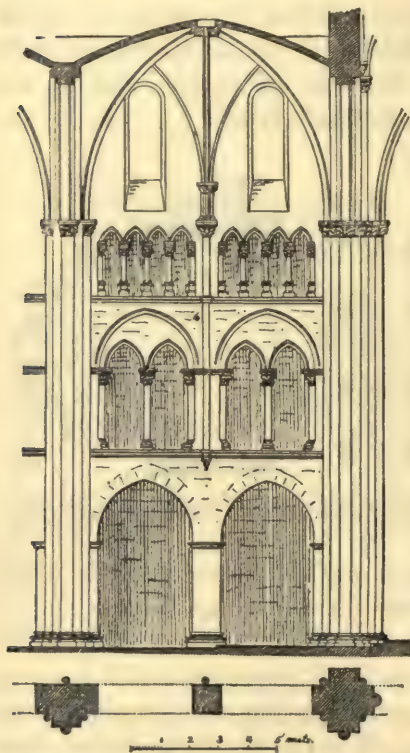


Fig. 342.—System of the Church of St. George at Limburg on the Lahn.

choir of St. Yved, to which the architect of Treves was led in consequence of his omission of the nave. The ends of the building were thus rendered almost entirely symmetrical. With exception of the chapels, which in St. Yved are semicircular, the similarity of plan is far greater than that between the choirs of Magdeburg and Soissons. The copy is not so close in the elevation (*Fig. 344*). The German architect followed native traditions in the introduction of Romanic portals, and showed his wide acquaintance with the cathedrals of France by the adoption of details from Rheims and Paris, which he combined with taste and understanding. The choice of a small church in a provincial town as a model, instead of one of the chief monuments of the French Gothic, is explicable by the fact

that the architect of Treves was called upon to erect a church of subordinate importance, not a cathedral; and furthermore, by the consideration that the choir of St. Yved, exceptional among those of France, bore a certain resemblance to the terminations previously in use among the Germans. If, as is not improbable,

the cloister of the Cathedral of Treves is a work of the same designer, it would appear that he did not always go so far in the adoption of Gothic details.

Although the example of Treves was not without influence upon the contemporary architecture of Germany,—as is proved by the

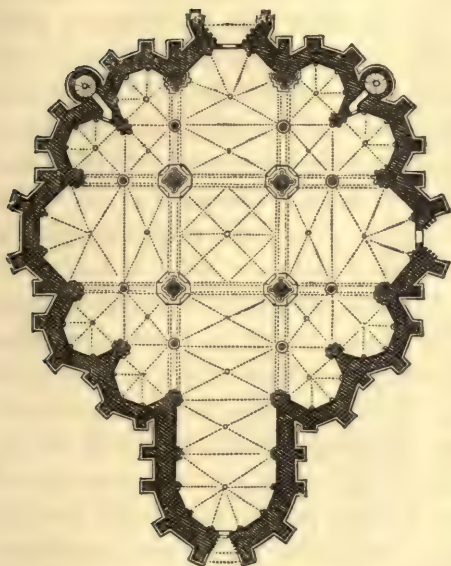


Fig. 343.—Plan of the Church of Our Lady at Treves.

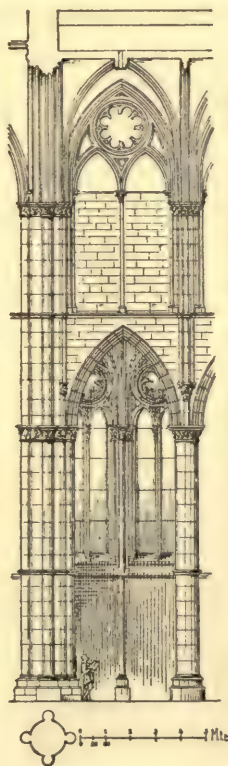


Fig. 344.—System of the Church of Our Lady at Treves.

buildings of distant provinces, as well as by those in the immediate vicinity,—it was still not possible to altogether abandon the Romanic traditions until the middle of the thirteenth century. The absolute ascendancy of the French Gothic style appeared in three magnificent and eminently successful edifices: the cathedrals of Strasburg, Freiburg in Baden, and Cologne. All these, in the parts

in question, were begun at the same time, shortly before the middle of the thirteenth century. The progress of their construction, however, was not equally rapid, the nave of Freiburg being completed in 1270, that of Strasburg in 1275, while the choir of Cologne was delayed until 1320.

In the two former churches the choir and transept had just been finished in the transitional style when the construction of the Gothic nave was commenced. The fact that the nave of the Strasburg Minster was designed earlier than that of Freiburg gives weight to certain traces in this latter of dependence upon the former. At all events, the two edifices are closely related in character, and it has been recognized that the direct prototype of both is the nave of St. Denis, begun in 1231. The piers, placed diagonally, with sixteen boltels, are alike in both minsters; but the elevation is rendered more simple at Freiburg (*Fig. 345*) by the omission of the triforium gallery, which is of so good effect in Strasburg. The body of the church is of comparatively greater height in the former than in the latter, where it was dependent upon that of the previously existing transept. In Strasburg the nave, even after the additions made to it by Erwin von Steinbach, is not more than twice as high as it is wide, and in Freiburg the nave is far from reaching a height equal to three times its width, a proportion generally adopted in the contemporary cathedrals of France. The German churches thus contrast favorably

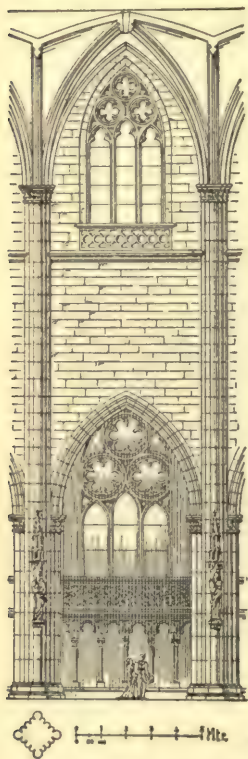


Fig. 345.—System of the Minster of Freiburg.

with the French models in possessing a certain breadth and spaciousness. The greatest difference between the minsters of Strasburg and Freiburg is to be observed in the façades. The fine effect of that of the former is to be ascribed to Erwin von Steinbach, A.D. 1277 to 1298. The façade of the latter, with its one tower,

was completed at an earlier date, although not until the commencement of the fourteenth century (*Fig. 346*).

The reconstruction of the Romanic Cathedral of Cologne was commenced in the choir, on the 14th of August, 1248. It was at first only intended to add to the Romanic nave a new choir. This



Fig. 346.—View of the Minster of Freiburg.

celebrated work, one of the grandest creations of the Gothic style in regard to harmony of execution as well as to dimensions, is also an almost exact imitation of a French model, the choir of the Cathedral of Amiens. The name of the architect who drew the plan, Gerhard von Riel, should nevertheless be rescued from oblivion and ranked with that of Erwin von Steinbach, on account of the beauty

of the proportions, the trained skill of the technical and artistic treatment, and the perfection of the exquisite details,—all deserving of the greatest admiration. This was, indeed, accorded to the artist during his lifetime and the following century. Even the successors in the work, generally so apt to give expression to the real or imaginary improvements of their time, closely followed the original design. This applies not only to Master Arnold, who is mentioned after A.D. 1296, but also to his son John, who, after 1319, was intrusted with the superintendence of the work. After the consecration of the choir in 1322, when it was resolved to demolish the Romanic nave and to rebuild it in the Gothic style, the design of the new parts was made to harmonize perfectly with that of the old, contrary to the usual method. It is not known whether the design of Master John was entirely his own, or whether it was based upon the earlier sketches of Master Gerhard; at all events, the unity of the construction is such as to make one forget that almost a century had elapsed between the planning of the choir and of the nave (*Figs. 347 and 348*). The same may be said of the imposing façade, the design of which, referable to 1350, was recovered by a fortunate chance, and has been of great importance in the modern completion of the towers.

The importance of this work has been undervalued in the assertion that it is a slavish copy of the Cathedral of Amiens, and in denying to it all originality and individuality. Neither of these objections is altogether correct. Although the plan of the Cathedral of Cologne, in its leading features, closely resembles that of the before-mentioned model, and the entire design bears a relation to the French Gothic, similar to that of the architecture of Rome to that of Greece, the Rhenish edifice has the advantage of carrying out the principles of the French style with a certain consequence and harmony. Moreover, in general arrangement as in details, it is not without innovations peculiarly German. These are more especially to be observed upon the exterior. In no French cathedral are the abutments so organically and richly developed, even to their very pinnacles; in none are the flying buttresses so rational and tasteful. The just proportions of the decorative accessories are everywhere observed, these being equally free from baldness and from

over-elaboration. Occasionally, it is true, the monotonous repetition is disagreeably felt, giving a somewhat mechanical character to the ornamentation; still, it cannot be denied that the forms, whether borrowed or independently developed, are particularly well adapted to their functions. Our admiration of the building, therefore, should not be limited to its dimensions. While it is surpassed by many

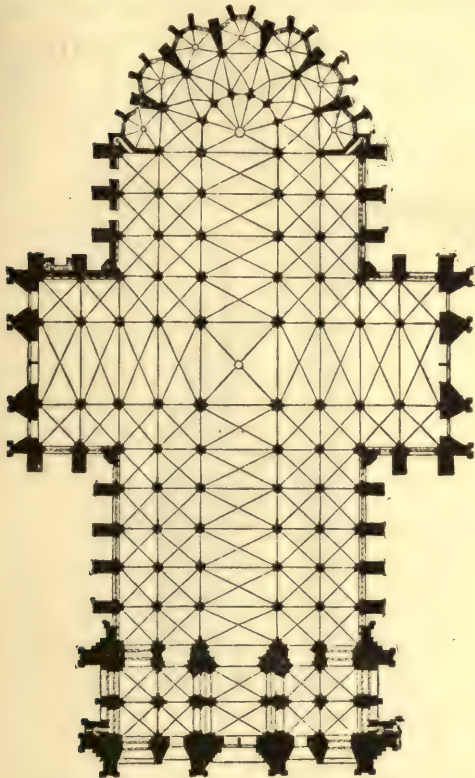


Fig. 347.—Plan of the Cathedral of Cologne.



Fig. 348.—System of the Choir of the Cathedral of Cologne.

others in individuality and artistic novelty, it is inferior to none in fidelity to the principles of the style, and in harmonious unity.

The systematic and somewhat empirical correctness of the work, and the fame of the architects of Cologne, could not fail to develop a school whose influence was of wide extent. It is to be traced in the north as far as Utrecht—instance the cathedral of that town; in

the west to the Cathedral of Metz; and in the south to Oppenheim, where it appears in the Church of St. Catherine (*Fig. 350*). In the more southern districts it competed with the influences of Strasburg and Freiburg. The school of Cologne sent its designers also to the East, in spite of the want of receptiveness of Westphalia, exemplified in the Cathedral of Minden, and of Saxony, in that of Halberstadt (*Fig. 349*), the Rhenish love of magnificence being altogether foreign to the national taste of these countries. The influence of the brilliant models of France and of the provinces of the



Fig. 349.—Section of the Cathedral of Halberstadt.

Rhine was by this time so widely felt that the new style was adopted wherever wealthy colleges, bishoprics, and growing cities found it necessary to erect or to reconstruct their churches. It is plain that the Germans were fully aware of the source from which these elements were derived; this is proved by the "*Chronicon Wimpinense*" of Burckard de Hallis, which not only ascribes the Collegiate Church of St. Peter at Wimpfen im Thal, built between 1261 and 1278, to an architect "come from Paris," but explicitly declares it to be "*opus Francigenum.*" There can be no doubt that this desig-

nation had, among the educated classes of that age, the same signification as "Gothic style" has to-day. It is certainly a far more appropriate name than the latter, which, as is well known, was brought into use as a term of contempt by the Italian masters of the Renaissance. The Emperor Charles IV., in founding the Cathedral of Prague, is known to have employed a French architect from

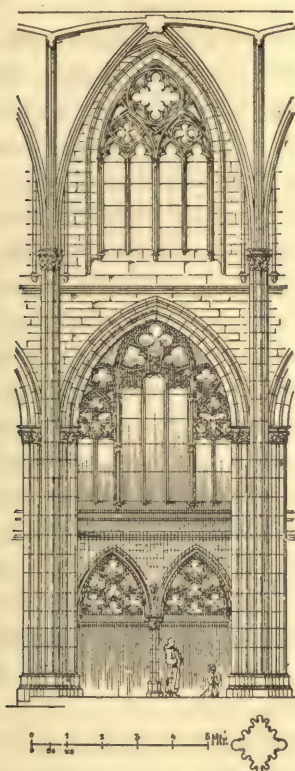


Fig. 350.—System of the Church of St. Catherine at Oppenheim.

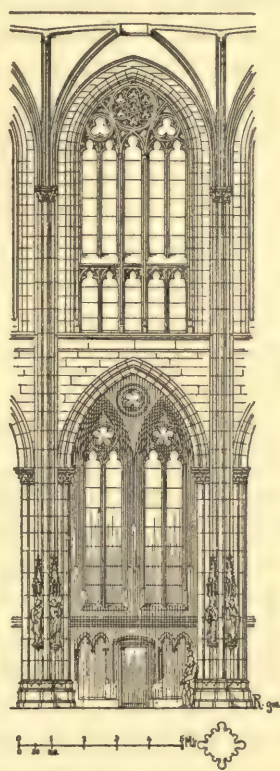


Fig. 351.—System of the Cathedral of Ratisbon.

Avignon, Matthew of Arras, who directed the construction from 1344 to 1352, and so far completed it as to leave to his successor, Peter of Gmuend, no choice in regard to style. In the Cathedral of Ratisbon, begun in 1273 (*Fig. 351*), the employment of a Frenchman, or of an architect trained in France, cannot, indeed, be definitely proved; still, the building, in its variety and grace, betrays the

direct influence of France as distinctly as it does that of the school of Cologne. This most charming of all German cathedrals has, nevertheless, much that is peculiarly national and individual; the simple termination of the choir, for instance, and of the similar chapels at the ends of the side aisles, successfully avoids the cramped plan which in the architecture of France had resulted from the surrounding passage and radial chapels.

As a rule, certain national peculiarities are manifest, even in those cases where the French Gothic was closely followed. These give to the German buildings a character of their own. The most remarkable of these traits appear in the polygonal terminations of the choir, which not only differ greatly from the French, but vary one from the other. The pillars of the German Romanic were retained, in contrast to the columnar supports of the French, the boltels being both disposed in plan and carried up to the impost of the vault in a more organic manner. The common capital was thus more naturally avoided, and the vertical principle, especially, more consequentially carried out. The foliage of the small capitals and cusps, consisting chiefly of oak-leaves, is more thoroughly conventionalized than in France. The tracery is rendered exceedingly elaborate through the employment of triangles and quadrangles with curved sides, these being better adapted to the pointed arch than were the circular forms. The intersections and trefoils resulted in a fine play of geometrical lines. This greater variety in the tracery led to the early adoption of reticulate and stellar forms for the ribs of the vault, these latter, in France, until a much later period, having been restricted to the main lines.

Upon the exterior the design attained a harmonious unity of the constructive and decorative features, and a more equal distribution of the ornamental members. The buttresses, which in France had been somewhat bare, assumed the importance of small towers, their walls being covered with tracery in relief, and surmounted with pointed gables and slender pinnacles. Gablets above the windows and entrances heightened the effect of the vertical lines of the composition, and were, in themselves, ornamental. The peculiarities of German design appeared chiefly in the treatment of the façade, the towers being of a size and magnificence rarely at-

tained in France and England. The ranges of tabernacles of the French models were avoided, as not being in harmony with the vertical tendencies of the German style; and, for similar reasons, the buttress piers, although greatly diminished, were not divided by horizontal cornices. At first the lower parts were of comparative simplicity; instance the tower of the Minster of Freiburg, one of the earliest of the kind. But as early as the two towers of Strasbourg, designed by Erwin von Steinbach, an elaborate multiplication of the upright supports was commenced; and in the Cathedral of Cologne this is continued to the very apex of the structure. In the octagon, which in Freiburg is more organically connected with its substructure, although still distinct from it, the openings are multiplied and the memberment more elaborated. This was especially the case with the four pinnacles at the corners, the gables and finials of which rise above the horizontal juncture of the spire. In the cathedrals of France the spire had often been omitted altogether, without great detriment to the design; in those of England, where it was exceptional, it rose without intermediation from the substructure, and was thus even less successful than the horizontal flat roof of the tower. In Germany, on the other hand, it formed the direct and indispensable termination of the pile, which was pyramidally diminished from its very base. The spire of the Church of St. Stephen in Vienna, for instance, is but little more inclined than are the walls which support it. To this it must be added that the multiplication of the openings rendered it out of the question to construct a spire of solid masonry, such as those customary in France. Above the octagon all the supports were isolated and filled in with mullions and tracery; in like manner, the spire was treated as a combination of eight slender and perforated gablets,—as a framework of eight ribs of stone connected by staff-work and tracery, fringed with crockets, and terminated by an imposing finial. It is plain that the treatment which had originated in the Gothic windows, extending, as has been seen, to the walls as traceries in relief, and to the ceilings as reticulate vaults, was applied even to the spire, and, carried out with the strictest consequence, led to an elaborate decorative perforation of the pyramidal roof, although this would seem most imperatively to require unbroken and im-

penetrable surfaces. The Gothic architects of Germany, however, did not conceive the spire as being the roof of the tower, which had itself outgrown its original purpose as a belfry, but regarded it rather as a lofty monument of pious pride. The actual roofing of the tower was constructed within the perforated spire, its surfaces having but a slight pitch, and being invisible from below. The light stone tracery, in its ethereal rhythm, may be compared to a hymn, rising grandly to the heavens, heedless of the earthly requirements of protection and of the dangers from wind and weather, to which the light structure was so exposed. It is still less surprising in Germany than in France that these aspiring towers should have been but rarely completed, even in those cases, as at Freiburg and Ulm, where the designers contented themselves with the erection of a single pile before the nave, contrary both to the traditions of the Romanic style and to those of the Gothic of France. Of the larger churches only the one tower of St. Stephen at Vienna and that of Freiburg were erected during the first period of construction. One of the towers of the Minster of Strasburg was, indeed, built at the close of the Middle Ages, between 1404 and 1439, by the brothers Juncker of Prague, and by John Hueltz of Cologne,—but not in accordance with the design of Erwin von Steinbach, the spirit of disorganization and technical bravura having by that time made itself felt. Others, as, for instance, those of Ratisbon, Cologne, and Ulm, have been completed within recent years.

Notwithstanding the many peculiarities before described, all these cathedrals and collegiate churches were much more dependent upon the French models than were the edifices of the same class in England. On the other hand, we meet in Germany with a number of monuments of far greater originality and more marked national character, which have a just claim to be considered as typical of the Gothic style of that country. These were the churches with aisles of equal height. They had appeared in the eastern provinces of the Lower Rhine even during the Romanic period, and still more frequently during the transitional ages. The first equal-aisled church of the Gothic style is, however, that of St. Elisabeth at Marburg, built between 1235 and 1283 (*Fig.* 352). In it may be traced the influence of the Church of Our Lady at Treves,

and thus, indirectly, that of France; still, in the vaults of equal height, supported upon pillars of symmetrical plan, in the restriction of the windows to the walls of the side aisles, and in the extremely simple system of buttresses, the structure introduced elements but rarely employed on the west of the Rhine. That a transept was not of harmonious effect in such an arrangement became



Fig. 352.—Section of the Church of St. Elisabeth at Marburg.

evident through this experiment; but the Church of St. Elisabeth, even in this respect, followed the models of Cologne, rather than those of France, in the apsidal form of the end walls.

This system, developed in Marburg, was imitated, or at least followed in its main features, far beyond the boundary of Hesse. It found particular favor in those districts where brick was the

only building material, as it was seen that this method of construction produced a good effect, while requiring but little artistic memberment and decoration. In the simplicity and the equality of its parts it agreed better with the bourgeois character of the Germans of that period than did the pompous and elegant structure of the cathedrals of France, which was rather in accord with the chivalrous and courtly tastes of the French, and was in great measure the creation of ecclesiastical dignitaries. The Germans, therefore, leaving the imitation of French models to the architects of Episcopal cathedrals and court churches, followed their own national system. This was especially the case in the flourishing free cities and the industrial and commercial towns, the citizens of which, long before the Reformation, had placed themselves in a certain opposition to the ecclesiastical and secular princes. The middle class was at that time of far greater importance in Germany than it was either in France or in England, and was consequently able to build larger and more numerous edifices than were even the episcopal towns, where nearly all the requisite churches had been erected during the Romanic and Transitional epochs. The new buildings were, of course, more simple in character, chiefly parish churches, to which the equal-aisled construction, without a detached presbytery, was especially well adapted; this arrangement has, however, been also employed, and with great success, for cathedrals, instance St. Stephen at Vienna. Thus, the church with aisles of equal height became the characteristic expression of the increased importance of the people in the political and social relations of Germany, in the same way as the cathedral was representative of the culture of France and England, which was decidedly courtly and aristocratic, the forms of worship being chiefly episcopal.

In the Church of St. Elisabeth at Marburg, as there was no clerestory, the windows were disposed in the high side aisles, above the lower apertures customary in the basilical arrangement. The double row of windows thus resulting gave upon the exterior the effect of the long-abandoned gallery (*Fig. 353*). The incongruity of this soon became evident, and an attempt was made to avoid the disadvantages by combining the two stories of windows into one. The consequent height and narrowness of the openings was

relieved by the introduction of a transom-like frieze of tracery, which divided the window into two parts (*Fig. 354*). Subsequently the very loftiness of these undivided windows was felt to be in harmony with the tall and slender pillars of the equal-aisled church, and to correspond with the general vertical tendencies of the design. The horizontal division was therefore omitted, and the mullions continued without interruption along the whole length, to the

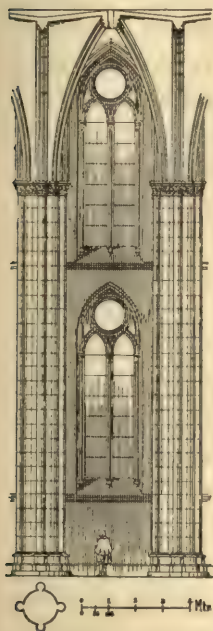


Fig. 353.—System of the Church of St. Elisabeth at Marburg.

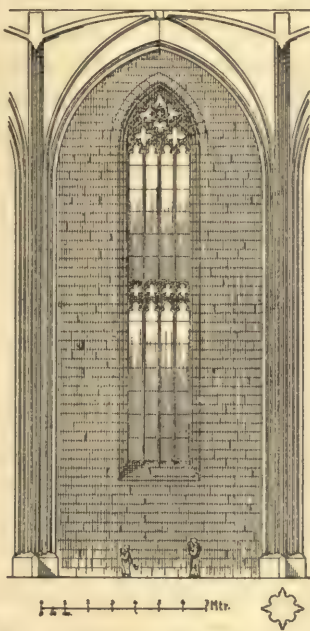


Fig. 354.—System of the Wiesenkirche at Soest.

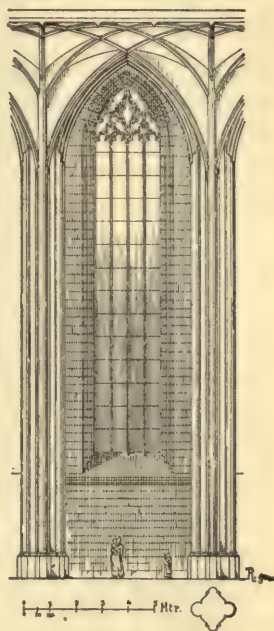


Fig. 355.—System of the Church of St. George at Noerdlingen.

tracery of the pointed arch (*Fig. 355*). The supports were simplified, the bundle of shafts being transformed into an octagonal pier. This change naturally led to the direct intersection of the ribs of the reticulate vault with the surfaces of the piers, consoles and vaulting posts being introduced only in exceptional cases.

It cannot be denied that these edifices have a certain prosaic and commonplace character, but often also a quiet grandeur which compares favorably with many a French cathedral. The well-light-

ed central aisle is free from the cramped and sombre effect of the high French nave, while the side aisles are rendered of more importance. The proportions of the structure have a harmony long unattained in ecclesiastic architecture. Vaults of equal height overspread the whole interior in regular undulations. The nave is seldom interrupted by a transept; the choir is consequently less detached, the elevation of the crypt being at last given up. The surrounding passage with radial chapels is generally retained. Chapels are often placed along the side aisles by allowing the buttresses to project into the interior, at times rising to the impost of the vault, as in the Church of Our Lady in Munich, at times terminating at half height, as in the Church of St. Martin at Landshut. These buildings are provided upon three sides with five portals, these giving an opportunity for profuse decoration, in which brick was as seldom employed as in the tracery and the ribs of the elaborate stellar and reticulate vaults. This was the case even in those parts of Southern Germany where there was no stone. While the interior of the brick buildings is entirely dependent upon stucco revetment, the exterior has, in Upper Germany, but little ornamentation, the memberment consisting chiefly of pilaster strips with pointed arched corbel-tables, both of which features were derived, with certain alterations, from the Romanic style.

Brick architecture was of a greater elaboration in the North German Lowlands, where the absolute lack of other material obliged the builders to substitute, in the place of sculptured details of stone, decorations of pressed terra-cotta, combined with varied courses of colored and glazed bricks. Colored ornamentation of this kind attained its highest development in the province of Brandenburg. The town of Brandenburg, which early became the most important place of the province, has two equal-aisled parish churches—that of St. Godehard, completed in 1346, and that of St. Catherine, built between 1380 and 1401. The exterior of the latter is rendered of good effect by alternate courses of dark green and red tiles, while the ornamented gables, the rich tracery of the windows, the friezes, and even the decorative statues, are of terra-cotta. The Church of the Virgin at Prenzlau (*Fig. 356*), erected at about the same time as St. Catherine, is, notably in the elaborate gable of its choir, a fine

example of the brick architecture of the Lowlands. The towers, however, share the plainness and massiveness of most of the buildings of this district, being undiminished, and having no octagonal superstructure; the wall surfaces are membered only by pilaster strips and narrow windows. Somewhat similar in construction are the churches of St. Stephen at Tangermuende, St. John at Werben, and the Virgin at Koenigsberg in the Neumark, all of which are referable to the second half of the fourteenth century; furthermore, the Cathedral and the Church of the Virgin at Stendal, dating from the first half of the fifteenth. The ecclesiastical edifices of Mecklenburg and Pomerania are more simple. This applies especially to the province of Prussia itself, the seat of the German Order of Knights, whose institutions, of somewhat martial character, rarely permitted a notable artistic development in the churches: instance the Cathedral of Frauenburg, A. D. 1329 to 1388, and the Church of the Virgin at Dantzic, 1343 to 1502. The bald and heavy character and the low proportions of these edifices are in striking contrast to certain of the brick buildings of South Germany, as, for example, the Church of St. Martin at Landshut, in which the vaults attain a height of thirty metres, while the piers are only about one metre in diameter, being thus of extreme attenuation.



Fig. 356.—View of the Church of the Virgin at Prenzlau, from the east.

The Gothic architecture of France had long been declining when that of Germany,—adopted late, but at last fully nationalized,—attained its greatest perfection. In the fifteenth century, however, the decadence began also in Germany. The preference for polygo-

nal plans led to whimsical artifices, which may be compared to the baroque designs of the late Renaissance. The ornamentation, especially the tracery, was no longer limited to geometrical lines, which had been used in such pleasing and tasteful variety; not only were the straight-lined forms greatly exaggerated, but a new phase

of the style made its appearance, the so-called Fischblase, or Vesica Piscis, similar to the English Flowing and the French Flamboyant. In some cases the decorative details imitated intertwined branches and other plant forms; the points of the finials, contrary to their vertical character, were bent and crossed in gentle curves; the ribs were detached from the panels of the vaults, and transformed into intricate ornaments. All these features show a debasement corresponding to that of the rococo,—the last stage of the declining Renaissance. With all this fantastic trifling there was still a consciousness that the principles of the older works ought not to be abandoned. This is not only seen in the technical excellence of the later edifices, but is expressed as an aphorism in the book of the episcopal architect of Ratisbon, Matthew Roritzer, "*Von der Fialen Gerechtigkeit*," printed at Eichstaedt in 1486. In this work great praise is

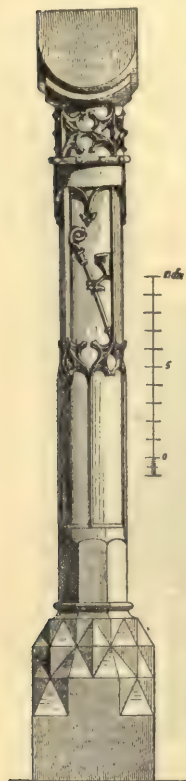


Fig. 357.—Column of the Herrenhaus at Maulbronn.



Fig. 358.—Column of the Cloister of the Cathedral at Eichstaedt.

bestowed upon the two brothers Juncker of Prague, whose principles were derived from the Suabian master of Gmuend, and thus indirectly from the founder of the school of architecture of Prague, Master Matthew of Arras, called to the Bohemian capital by Charles IV.

The advance in secular architecture, monumental as well as private, went hand in hand with that of the ecclesiastical. Until the close of the twelfth century the German convents and princely palaces had been of but little architectural significance; nor were the civic buildings in any wise distinguished. The houses of patri- cians were occasionally provided with towers, as in Ratisbon, but the dwellings of the burghers were extremely unpretentious. This state of things was entirely altered in Germany with the increased demand for the re- finements of life, not only at the courts of princes, but among the higher ecclesias- tical and secular authorities, who favored the gratifica- tion of similar requirements in the convents founded or restored by them. In this regard a fact of the most far-reaching importance was that the monopoly of artis- tic activity passed, in great measure, from the monks to the laymen, the attention, especially in the growing towns, being thus turned to- wards the erection of secu- lar edifices.



Fig. 359.—South-eastern Corner of the Cloister of the Cistercian Convent of Maulbronn.

The convents were the first to outgrow the extreme simplicity which had hitherto satisfied their modest wants. Stately cloisters, with arcades similar to triforium galleries, were customary as early as the transitional period, and the Romanic forms were preserved in these structures even at a time when the Gothic style had become prevalent in church building. This was the case in the fine cloisters of the Austrian Cistercian convents Zwetl and Heiligenkreuz, in that of the Cathedral of Treves, and in the courts of the Cathedral of Erfurt, and St. Emmeramnus at Ratisbon; the two latter, how-

ever, were completed in the Gothic style. It is not definitely known whether purely Gothic cloisters existed before that at Klosterneuburg in Austria, built between 1270 and 1292, but it is certain that many of those standing in connection with cathedrals and convents were constructed soon after that age (*Fig. 359*). In all of these, windows with elaborate tracery took the place of the arcades, and instead of the wooden ceilings hitherto customary, ribbed vaults were introduced. These latter, in their perspective effect, are among the most pleasing creations of that period. A similar arrangement of windows and ceilings was gradually adopted in the chapter halls and refectories; excellent examples of these still exist in Maulbronn.*

The fortress-like character of the palaces did not at first favor a higher artistic development, especially in regard to the exterior. Transitional forms were long retained, as for instance in the Castle of Reichenberg near Goarshausen, built in 1284. This is chiefly due to the fact that parts of the previously existing buildings were preserved in the reconstructions, and furthermore that the round arch did not require so great a height of the stories, thus giving it a practical advantage over the high Gothic vaults. The decorative details of the new style were therefore more frequently introduced than was its constructive system, they being employed in so far as they could be adapted to the Romanic plan and framework. The Gothic style was first followed, in its entirety, in the Castle of the German Knights at Marienburg in Prussia, founded in 1280, which, after becoming in 1309 the residence of the chief of the Order, was greatly enlarged and embellished. It was completed in 1382. The building being at once convent and palace, its chief architectural importance centred in the cloistered court of the castle and in the large halls of other parts of the edifice. Among the latter the two-aisled refectory, with three tall polygonal piers supporting vaults with fan-shaped ribs, is one of the most attractive creations of the secular architecture of Germany in the Gothic period. Similar mediæval castles are that of Marienwerder; that of Heilsberg, built by the Bishop of Ermeland about 1350; that of

* E. Paulus, *Die Cisterzienserabtei Maulbronn*. Second Edition. Stuttgart, 1882.

Karlstein in Bohemia, built by the Emperor Charles IV. between 1348 and 1357; and, finally, the Albrechtsburg at Meissen, dating from the close of the period A.D. 1471 to 1483, and recently restored.

Greater opportunities for artistic elaboration of the exterior were given by the town-halls—the most important among the civic buildings. The façade of the oldest of these, the so-called Grashaus in Aix-la-Chapelle, built in the second half of the thirteenth century, retains some features of the transitional style. Examples of purely Gothic constructions in stone are the older parts of the town-hall of Ratisbon, built between 1320 and 1330, noteworthy for their picturesque-ness; the town-halls of Muenster and Lemgo in Westphalia, dating from the middle of the fourteenth century; that of Brunswick, begun in 1393; and those of Basle, Ulm, Prague, and Breslau, all referable to the same age. The imposing tower of the town-hall of Cologne was built in the fifteenth century, and the older parts of that in Nuremberg, famed for the beauty and richness of its inner court, are even as late as the close of the Gothic period. The town-halls of the North German Lowlands, built of brick, often of various colors, are particularly interesting. Mention may be made of those of Brandenburg, Tangermuende, Koenigsberg in the Neumark, Bremen, Lubeck, and Hanover.

Prominent among the civic buildings are also the halls for mercantile purposes, such, for instance, as the Guerzenich at Cologne, and the Artushof at Dantzic; the latter is mainly remarkable for its interior, one room of which resembles the refectory at Marienburg. A number of hospitals, with halls of like character, belong to this period; one of these is preserved in the Hospital of the Holy Ghost at Lubeck; that in the establishment of the same name at Munich, which long served as a meat-market, has lately been torn down to make way for a new building. Reference must further be made to the Gothic gate-ways, the oldest of which, those at Cologne, have already been mentioned. They are sometimes elaborately decorated, as, for instance, the Spahlenthor at Basle; or are ornamented with colored tiles, as the city gates of Brandenburg, Stendal, and Tangermuende, in the North German lowlands. Similar in architectural treatment were the bridges, fortified by towers at the abut-

ments or in the middle,—plain and massive constructions, with pointed arches.

The private dwellings, finally, gave expression to the growing prosperity of the citizens in the commercial towns. The ground-floor was chiefly occupied by magazines, and was of plain and solid construction, occasionally provided with open arcades, supported upon piers or columns. The large store-rooms in the upper stories required lofty and steep roofs, the gables of which gave opportunity for an independent and elaborate memberment. Otherwise the decoration was mostly limited to the oriel-windows at half height, these often being the only ornament, as in the Parsonage of St. Sebaldus in Nuremberg. The Nassau House and the Playhouse in Nuremberg, the so-called Stone House in Frankfort, and several houses at Muenster and other towns of Westphalia, are among the most interesting mediæval dwellings of hewn stone. The variegated brick façades in the towns of the North German lowlands are quite as picturesque, as are also the constructions of nogging with projecting stories, common in the provinces of Saxony, Hanover, and Brunswick. In the last-named buildings the carvings of the beams and struts are of fine effect; the sculptured ornamentation is limited to these, but paintings are not infrequently executed upon the stucco of the wall surfaces.

Although Germany had received the Gothic from France as a fully-developed style, it did not employ it as an established and unalterable system. The German architects at first attempted to effect a compromise between the Gothic and the long-accustomed Romanic, but, having once shaken off the old traditions, they added new and original traits to the adopted style. In cathedrals the French models were closely followed; in other works, however, a variety was attained rarely to be found even in that country. The restless and speculative German mind has continually striven after new solutions and modes of expression, its pronounced individuality seeking for peculiar features. No nation has known better how to adapt itself to the purposes and requirements of the moment, to conform its aspirations to the given means, and to make the best of the materials available. Such a rational and even prudent treatment of the constructive problems in no wise interfered with the

expression of artistic ideas. This could hardly have been otherwise with a people who have in all ages been famed among their neighbors for combining acumen and clearness of thought with depth of sentiment.

ITALY.

We have no such exact historical information concerning the introduction of the Gothic into Italy* as in regard to its adoption in England and Germany. By reason of the various and involved circumstances which the new style encountered south of the Alps, it was forced to contend with a complexity of traditions such as it had not met with either upon English or German soil. Moreover, an artistic activity of the greatest extent had begun, and many important buildings were in process of erection. Only in exceptional cases were these constructed throughout according to the original plan, which was often so disturbed and altered by hesitation on the side of the architects, and by protests from the communities, patrons, or commissioners, that, even when outward circumstances occasioned no delay, the work sometimes came to a stand-still through sheer inability to overcome these obstacles. The new style was chiefly employed for the completion of buildings, the original design of which had been entirely different. Moreover, the most various elements, basilical, Byzantine, and Lombardic, were promiscuously intermingled in the Italian constructions, and rendered the attainment of an organic unity and a perfected system more difficult in this country than in any other. These difficulties were further increased by the fact that new ideals, tending towards the Renaissance, were already making themselves felt. Even before the transition from the Romanic to the Gothic was completely effected, that to the Renaissance began; this justifies, in a certain measure, the position of those who hold that, properly speaking, there never was an Italian Gothic style.

* Compare the works quoted on page 309. Furthermore: R. Willis, *Remarks on the Architecture of the Middle Ages, especially of Italy*. Cambridge, 1835.—F. Lose and L. Gruner, *The Terracotta Architecture of North Italy*. London, 1867.—G. Rohault de Fleury, *La Toscane au Moyen-Age*. Paris, 1873.

It is not easy to give dates for the first appearance of Gothic features in Italy, and it is almost impossible to trace the manner of their introduction. As has been already explained, the pointed arch of Sicilian architecture is to be referred to Arabian rather than to French influences. But it cannot be ascertained whence came the pointed arcades and arches in relief which early appear in North Italy, as, for instance, in the Church of S. Maria at Vezzolanó in

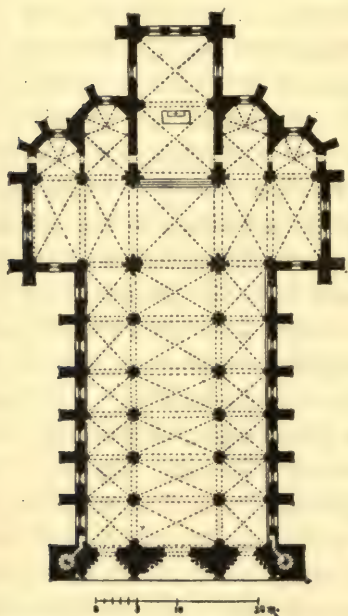


Fig. 360.—Plan of S. Andrea at Vercelli.



Fig. 361.—System of S. Andrea at Vercelli.

Lombardy, built between 1150 and 1189. It may be assumed, but cannot be definitely proved, that Burgundy, which, in the beginning of the eleventh century, had been affected by the architectural methods of Upper Italy,—instance the works of Dijon,—now, in its turn, influenced Italy through the mediation of Cluny. The influence of the Cistercian convents,—themselves dependent upon Burgundy,—is more assured, it being evident in the plans and elevations of the Church of S. Maria d'Arbona in the Abruzzi, built in

1208, and of the Church of the Cistercians in Chiaravalle, in the Milanese district, consecrated in 1221. Traces of it are also to be observed in the plans of the choirs of the ecclesiastical edifices erected by the new orders of the Franciscans and Dominicans. The systematic importation of the style, however, is as little proved by all these features as by various documentary evidences bearing upon the question. We learn, for instance, that Cardinal Jac. Guala Bichieri called an English architect for the building of S. Andrea at Vercelli, A.D. 1219 to 1224 (*Figs.* 360 and 361); but this does not coincide with the fact that the edifice is entirely Italian and Romanic on the exterior, and that its interior, although Gothic, shows no characteristics peculiarly English. It is possible, also, that a French architect, or one trained in France, may here or there have been employed, though of this there is no historical proof anterior to the rule of the dynasty of Anjou in Naples. At all events, it is quite as incorrect to speak of a French importation as to ascribe to Germany the entire introduction of the Gothic style into Italy, upon the ground that S. Francesco at Assisi, the first purely Gothic church of that country of which the date is accurately known, was built by a German architect.

It must always remain an open question whether Jacobus de Merania (Meran), whose plan was adopted in the competition for the design of S. Francesco at Assisi (*Figs.* 362 and 363), was himself trained in a Lombardic or in a Cisalpine school, in view of the fact that, upon the whole, the Southern Tyrol exhibits quite as many Lombardic as national or German traits. Although the transition from the Romanic to the Gothic style cannot be historically traced in Upper Italy, the monuments have nevertheless furnished material which, according to the researches of Mothes, are sufficient to warrant the assumption of a somewhat autochthonous character for the Italian Gothic. The pointed arch, long customary in Sicily, naturally came to be employed in the construction of vaults. It was especially well adapted to the requirements of Italy, where timber was lacking, inasmuch as one of the great practical advantages of pointed vaults lies in the possibility of their execution with lighter wooden centring.

It was a matter of the utmost importance that the Franciscan

order, which received the Papal sanction in 1215, introduced the new style into one of its first churches,—even as the Cistercians had previously adopted a particular method of building for their ecclesiastical edifices. Still, the employment of the Gothic was not exclusively confined to the Minorites. The natural desire thus outwardly to place itself in opposition to the older monasteries, especially in regard to their traditional and archaistic institutions, conceptions, and methods of building, was similarly felt by another

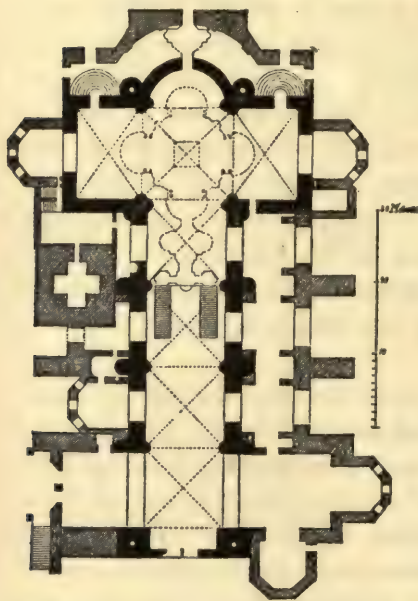


Fig. 362.—Plan of S. Francesco at Assisi.



Fig. 363.—System of S. Francesco at Assisi.

order, which arose about the same time. This was the society of the Dominicans, also founded as a mendicant order, and sanctioned in 1216. We find them, from the first, pursuing in their churches the same course as the Franciscans, and in a measure competing with them. Thus two important Gothic churches of these orders were erected at about the same date, before S. Francesco at Assisi had been entirely completed, A.D. 1253—namely, the Church of the Minorites, S. Francesco at Bologna, and that of the Dominicans,

S. Giovanni e Paolo at Venice. The latter of these has been proved by modern research not to be a copy of the Franciscan Church of S. Maria Gloriosa ai Frari at the same place, begun in 1250, but to have been founded much earlier. It appears that the Dominicans accepted the innovation with greater readiness, and practised the Gothic methods more exclusively, than did their rivals. While, in one of the most prominent churches of the Franciscans, S. Antonio in Padua, built between 1232 and 1307, a certain hesitation is evi-

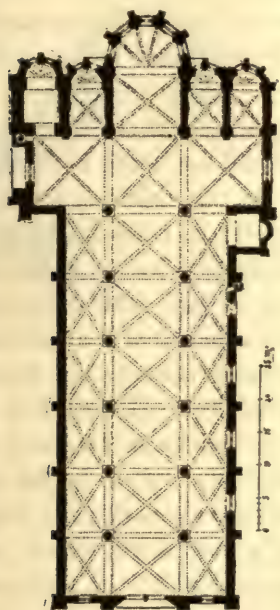


Fig. 364.—Plan of S. Anastasia at Verona.

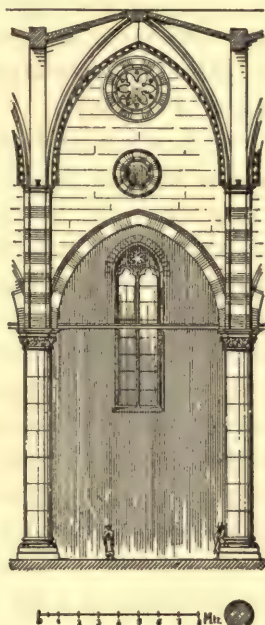


Fig. 365.—System of S. Anastasia at Verona.

dent,—the cupolas in the main aisles being similar to those of St. Mark, and a transitional character being retained in the round arches,—the Dominicans consequentially followed the principles which they had adopted. This is exemplified by the magnificent Church of S. Maria Novella in Florence, founded in 1278; by the Convent Church of S. Maria Sopra Minerva in Rome, begun in 1281; by several structures in the district of Venice; and by the Church of S. Anastasia at Verona, begun in 1290, following the

precedent of S. Giovanni e Paolo (*Figs. 364 and 365*); furthermore, by S. Agostino in Padua, completed in 1303, and torn down in 1822; and by S. Niccolo at Trevigi, A. D. 1310 to 1352. The architects of all these works were brethren of the Dominican order; the names of two have been handed down—Fra Sisto and Fra Ristoro, the designers of S. Maria Novella and S. Maria Sopra Minerva. The one architect among the Franciscans, on the other hand, Philip de Campello, pupil of Jacobus of Meran, who completed S. Francesco and erected a copy of it in S. Chiara at Assisi, entered the order at a later date. At times, even, constructions of the Minorites were carried out under the superintendence of Dominicans; instance S. Maria Gloriosa at Venice.

The architectural productions of the mendicant orders were soon surpassed by those of the laymen, who could not resist the influence of the new style, nor fail to recognize its constructive advantages and its suitability for ecclesiastical edifices. In cathedrals, especially, the traditions were retained with great pertinacity, it being felt necessary to conform the later additions to the older parts of the structures. Thus those portions of the Cathedral of Viterbo and of that in Siena which date from the thirteenth century are Romanic in plan, the details being of the transitional style. It was only after the erection of the smaller Church of S. Trinità in Florence, built about 1250 by Niccolo Pisano, that the Gothic style began to be more extensively employed for cathedrals, appearing in that of Arezzo, commenced in 1277. In this grand work, which shows Northern influences in a far greater degree than do the before-mentioned structures, the Gothic style was finally established, exhibiting that technical perfection which is to be attained only by lay designers. The Franciscans, therefore, in the erection of their enormous church, S. Croce, in Florence, employed Arnolfo de Cambio, an architect who had been trained in the school of Niccolo Pisano, and had profited by the experience of this master as well as by that of Giovanni Pisano, the latter of whom was the designer of the Campo Santo at Pisa, A. D. 1278 to 1283, and of the façade of the Cathedral of Siena, begun in 1284. Arnolfo's extraordinary ability, however, was chiefly manifested in the construction of the Cathedral of Florence (*Figs. 366 and 367*), which was undertaken at about

the same time as S. Croce. The supremacy of the Gothic style, at least in Northern Italy, was determined by this Florentine edifice.

Through the before-mentioned monuments, all referable to the thirteenth century, a peculiar treatment of the architectural forms of the North had been developed in Italy. The style thus determined is known as the Italian Gothic. It is to be remarked that the arrangement of plan remained almost wholly unaltered, continuing basilical or Romanic. Gothic forms were combined with the dom-

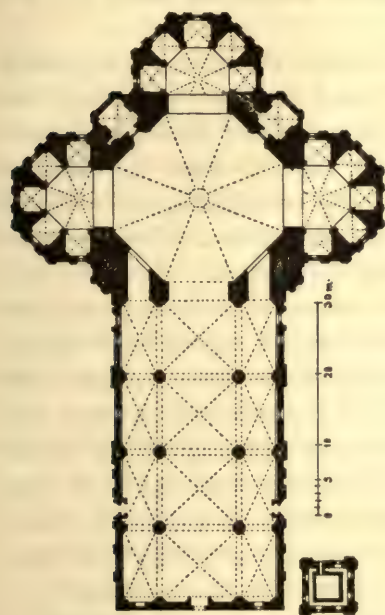


Fig. 366.—Plan of the Cathedral of Florence.

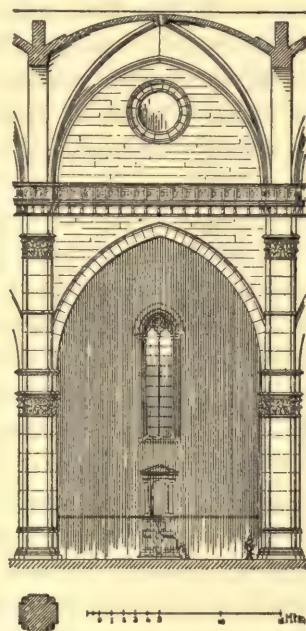


Fig. 367.—System of the Cathedral of Florence.

ical system of the Byzantines, the cupolas not being restricted, as in the Romanic style, to the intersection of transept and nave,—instance S. Antonio at Padua. In Italy there is scarcely a trace of that resolution of all the wall surfaces into pillars, or of that excessive multiplication of the vertical members so characteristic of the Gothic of the North. On the contrary, the supports of the nave were diminished in number and placed farther apart, the open and broad effect of the edifices of the Italian Gothic contrasting strik-

ingly with the high, cramped aisles of Northern churches. The enormous interior of the Cathedral of Florence has the fewest possible supports. The termination of the choir by surrounding passage and radial chapels occurs but rarely. Another arrangement, first introduced by the Cistercians, was frequently adopted, especially in the convent churches of the new orders, the chapels being disposed on either side of the choir, and along the eastern wall of the transept. In S. Croce at Florence two of these chapels are open towards the nave and are placed beside the choir, which is considerably diminished in width.

In regard to the elevation, the walls of the nave are supported either upon columns or upon polygonal or membered piers; the arches are of wide span, and are so high that the side aisles became nearly as high as the nave. Galleries and triforiums thus became impossible, and in the nave there usually remained space sufficient only for the introduction of small, round windows. Even in those cases where the dimensions permitted the adoption of pointed windows, these do not so completely perforate the wall surfaces of the clerestory as do those of the North, but are restricted to narrow apertures, generally grouped in couples. They are of the same form in the side aisles, where they are not unfrequently omitted altogether, in order to leave the greatest possible space for stately altars and funeral monuments. The relative importance of these furnishings, owing to the scant memberment of the walls, is such that the entire appearance of the interior is dependent upon them, the building itself often giving the impression of an unpretentious shrine erected for their reception. Where the sculptured details of these accessories did not suffice for the decorative effect, mural paintings were introduced. It is characteristic of this treatment that, while in the North the painted decorations customary during the early Christian and Romanic periods were rendered impossible by the extensive architectural memberment of the Gothic, in Italy the revival of wall-painting made its first appearance in the earliest Gothic building, the Church of S. Francesco at Assisi, and developed its great extent and magnificence in the subsequent monuments of that style. Such an ornamentation could not entirely compensate for the bareness of the structure, and especially for the insignifi-

cance of the windows; still, this combining of architecture, sculpture, and painting to form a harmonious unity, while maintaining the independence of each, has its undeniable advantages.

The ceilings, also, are of the utmost simplicity. The vaults are limited to the most necessary transverse ribs, excepting in those cases where the basilical wooden ceiling is retained,—as in S. Croce at Florence, in which a simple wooden gallery takes the place of the triforium, — or a kind of barrel-vault formed of wooden panels, is employed, as in S. Fermo at Verona. The more elaborate varieties, the stellar, reticulate, and fan-shaped vaults, are quite unknown. When diagonal ribs are introduced they stand in no organic connection with the supports, as in France and Germany. On the other hand, the immense span of the vaults is astonishing, and is rendered most impressive by the small number of supports. This effect is not disturbed by the comparatively low proportions, the height of the nave being, on an average, only one and a half times its width, and thus contrasting with the French cathedrals, where the relation is as three to one. The Italian Gothic, though certainly not equal to the French, in organic unity of construction and detail, surpasses that of all the Cisalpine countries in the spaciousness of the interior. The length, width, and height are well proportioned, neither of these dimensions being unduly predominant. In admiring the grand effect of the long perspectives and the aspiring height of the French and German cathedrals, one is apt to forget that these structures are too long, and especially too high, in proportion to their width. In the English cathedrals height and width are well balanced, but the length is out of all measure, although this is somewhat relieved by the intervention of the rood-screen, invariably introduced. That the buildings of the Italian Gothic are commonly held to be too broad by the English, and too broad and too low by the French and Germans, does not actually prove a want of harmony in the dimensions; the error of these judgments may be accounted for by the fact that the eye of the observer is prejudiced through being long accustomed to the proportions of native architecture.

Less praise is to be bestowed upon the exterior. The introduction of pilaster strips in place of abutments, and the consequent omission of flying buttresses was indeed no disadvantage. The

thick walls did not require any further strengthening, and flying buttresses were rendered unnecessary by the low elevation of the nave and the slight side-thrust of the comparatively flat roof. But, after these constructive features had once been given up, it was a mistake to preserve their ornamental details by placing finials, pointed gables, etc., above windows and cornices, without regard to their real signification as terminations of vertical members. The windows were surrounded by a delicate and graceful decoration, not altogether in harmony with the style, while the walls were reveted with slabs of colored marble, arranged either in horizontal courses or in patterns entirely foreign to the Gothic.

It is plain that the details were not considered as growing out of the construction, and being inseparably connected with it, but were treated as a mantle by which the naked body of the edifice was decked. This is most evident in the façades, which have the appearance of independent screens, erected for show, before the end wall, itself so bare of constructive memberment. The longitudinal walls were indicated upon the exterior by piers crowned with finials. But, in general, neither the height of the aisles nor the lines of their roofing were regarded; the ornamented façade not only projected above them, but ended in three pointed gables, in entire disaccord with the lean-to roofs of the side aisles. In portals and windows a combination of round and pointed forms was employed by preference, both being ornamented with gablets and pinnacles, while the remaining wall surfaces were literally covered with sculptured and painted decorations. The tower was not immediately connected with the façade, as in the North, but preserved its traditional isolation; it was as flat-roofed and as little diminished as in former times. While in Germany and France the creative energy generally relaxed during the erection of the towers, in Italy this was the case during the completion of the façades. Still, the fronts of the cathedrals of Siena and Orvieto (*Fig. 368*) are fine examples, the former being decorated with sculpture, the latter in color, chiefly mosaics. Both of these are far superior to the façades completed at a later date, whether in the period of the early Renaissance, like that of S. Maria Novella, designed by Alberti, or in more modern times, like those of S. Croce and the Cathedral of Florence.

As sculptors and painters, such as Niccolò and Giovanni Pisano, Giotto and Orcagna, also took a prominent part in the development of architecture, it was not strange that the contrast between the constructive and decorative features, noticeable in Italy even in the Romanic epoch, was emphasized, while the ornamental details be-



Fig. 368.—Façade of the Cathedral of Orvieto.

came more and more independent works of sculpture and painting. The interior of the churches seemed created for the reception of imposing monuments, statuary, and paintings; and, in like manner, the exterior was adorned with many works in relief and in color, the architectural details being inorganic and not altogether in ac-

cordance with Gothic principles. A comparison between, on the one hand, the exteriors of the Cathedral and the Campanile at Pisa, and of the baptisteries at Pisa and Florence,—and, on the other, the exteriors of the Cathedral and Campanile of Florence and the façades of Siena and Orvieto,—clearly shows the predominance of the architectural features in the former examples, and of the painted and sculptured decorations in the latter. This relation is everywhere apparent, though not always to the extent observable in the façade of Siena, erected under the superintendence of a sculptor, Giovanni Pisano, or in the Campanile of Florence, designed by a painter, Giotto.

It was not, however, owing to these tendencies alone that the Gothic style failed to attain a consequential development in Italy. It was, upon the whole, as perfect in the first constructions of the Franciscans and Dominicans, and in the cathedrals of Arezzo and Florence, as in the later edifices. The Italian builders could not free themselves from their deeply-rooted native conceptions, and more especially from the Romanic traditions. Elements of this earlier style were introduced into the arches, the vaults, and even the details, whenever they were considered of good effect. The façade of the transept of the Cathedral of Cremona, begun in 1288, is an arbitrary combination of Romanic and Gothic features, disposed with regard to picturesque effect rather than a rational construction. This treatment prevailed throughout the fourteenth century, appearing, for instance, in the choir of the Cathedral of Lucca (*Fig. 369*), built between 1308 and 1320, and in the nave of the same church, dating from the next following decades. The only building which seems to have had a decisive influence is the Cathedral of Florence, the work of Arnolfo di Cambio. Reminiscences of it appear in the neighboring Chapel of Or San Michele, A. D. 1337 to 1360, which is said to have been commenced by Taddeo Gaddi, and was completed by Orcagna; also in the Loggia dei Lanzi at Florence, which was designed in 1356 but not begun until 1376, this date proving that nothing more than the plan of the latter building can be ascribed to Orcagna.

The influence of Arnolfo's work is not seen alone in the productions of Florentine masters, but can be traced in distant towns,

where there is no documentary proof of any connection with his school. An instance of this is the Cathedral of Bologna, S. Petronio, designed by Antonio di Vincenzo (*Fig. 370*). This building, which was intended to be the largest church of the period, is scarcely more than half completed. It was begun in 1390, and the vaults of the nave are as late as 1580, the system of the Florentine cathedral being thus continued, without essential improvement, until late in

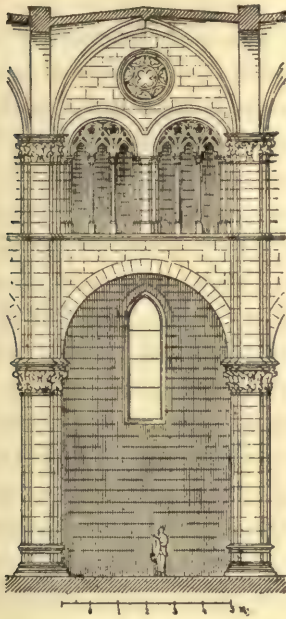


Fig. 369.—System of the Cathedral of Lucca.

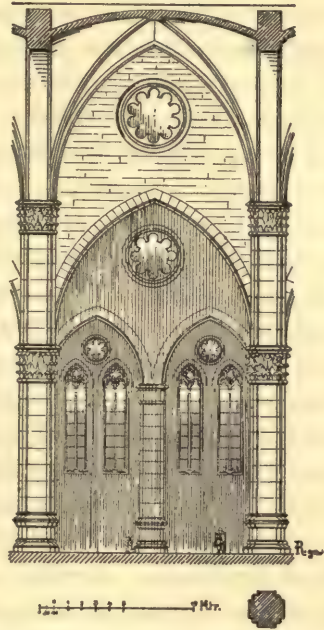


Fig. 370.—System of the Cathedral of Bologna.

the sixteenth century. The retention of Romanic arrangements and details is at times more evident than it was during preceding ages. S. Maria del Carmine at Pavia, founded in 1373, not only follows in its plan the transitional style of the Cistercian constructions, but even adopts the Romanic cube capital for the boltels. In comparing this church with that of S. Andrea at Vercelli, built more than a century and a half before, it must be acknowledged that there is more of the purely Gothic element in the earlier than in the later

structure. The Gothic style was not adapted to the architectural conceptions of Italy. Having paid its tribute to the fashion of the age, that country seemed to incline rather towards a retrograde movement,—a return to previous methods,—than towards any further development of the French system.

A full and exclusive adoption of Gothic principles does not appear, even in those cases when the influence of the North was dominant, as in the Cathedral of Milan, begun in 1386. The founder of this building, Giovanni Galeazzo Visconti, favored the choice of Northern models, his political principles also inclining towards those of the North. Even for the design of the original plan he employed a Cisalpine architect, whose name is unknown. After this follow in rapid succession the names of Nic. Bonaventura of Paris, Master Henry of Gmuend, as early as 1391, Ulrich of Fuesingen (Fuessen), Jean Mignoth, a Frenchman, James Cova of Bruges, and John Campomosi of Normandy, all of whom were intrusted with the superintendence of the work. An entire century later, a German, John of Gratz, was called as architect, A. D. 1483. But these foreign designers did not succeed in fully introducing the Northern system, in opposition to the desires of the building committee. The Italians would neither give up the breadth of space, nor permit a greater elevation of the nave and the consequent elaboration of the windows. This magnificent marble building must be regarded as a not altogether successful Italian version of the Gothic cathedral style of the North. Its exterior by no means compensates for the lack of that organic development which is the chief attraction of the Cisalpine edifices. It seems that this attempt at foreign importation was a disappointment even to the princely founder, for in the construction of the Certosa at Pavia, A. D. 1396, Galeazzo returned to the national methods. At the foot of the Alps there was still less inclination to accept Northern influences in the Gothic epoch than there had been during the Romanic. This is exemplified in Verona by the cathedral, and the churches of S. Anastasia and S. Fermo; and particularly in Como, where the Romanic basilica S. Abondio was closely related to German edifices, while the Gothic cathedrals, restored at the time of the construction of the Certosa, exclusively followed native methods.

The importation from France was more important in Lower Italy, where the ruler was a French prince. It seems that even here an attempt was made to combine Gothic elements with the various older traditions resulting from the occupation of the country by foreign invaders, the Byzantines, Arabs, and Normans. Such crude amalgamation as appears in the Cloister of S. Domenico at Salerno, and in that of the Convent of the Capuchins at Amalfi, or the Palazzo Ruffolo at Ravello, was altogether unsatisfactory. Charles I. of Anjou, A. D. 1268 to 1285, called his architects from France, and his example was followed not only by the French barons but by the native nobles. The French system was adopted for the churches as well as the castles. This is unmistakably shown by the Cathedral and the Church of S. Domenico at Naples, as well as by several other churches of this city; also by S. Angelo on Mount Gargano, and S. Caterina in Otranto. Records show the case to have been the same with a number of buildings since destroyed. Sicily was less affected by the French methods, the combination which has before been described being continued even after the Sicilian vespers, A. D. 1282. In the fourteenth century the political relations of the island to Pisa and to Tuscany introduced into Palermo some architectural influences from the banks of the Arno, but the native energy of Sicily was by this time too much exhausted for any artistic activity of importance.

While it must be admitted that the ecclesiastical edifices of Italy during the Gothic period often betray a certain irregularity of design and want of logical consequence in point of style, it is, on the other hand, no less true that this very freedom led to excellent results in other buildings. The enclosure of the Campo Santo, at Pisa, designed by Giovanni Pisano, is greatly superior to all French and German structures of the kind; and the secular buildings of Italy meet the practical and æsthetic requirements, in regard to the arrangement of plan, artistic composition, and decoration, far better than do those north of the Alps. For such tasks the unhampered Gothic of Italy was better adapted than was the style of the Northern countries, which had been so exclusively developed in the construction of cathedrals. It is, moreover, to be borne in mind that the municipal organization of the mediæval Italians gave opportu-

nity for the erection of more numerous civic monuments than were required by the French, or even by the burghers of the German free cities.

In the higher municipalities of Italy two governing bodies existed side by side—the podestà and the council. Palatial edifices were required for both; those of the former having somewhat the character of fortifications and dwellings, while in those of the latter open and spacious halls predominated. The first class consequently led to the development of magnificent interior courts; the latter to imposing façades. Fine examples of both varieties are to be found in the cities of Tuscany: Florence, Pistoja, Siena, Pisa, Orvieto, Viterbo, Perugia; as well as those of Lombardy: Milan, Como, Monza, Brescia, Bergamo, Cremona, Piacenza, and others. They are all of that massive and defiant, even domineering, character, peculiar to the Italian towns of that age, especially to those of the districts before mentioned. They have almost the appearance of fortifications: in the arcades of the lower story, supported upon piers, in the projecting battlements, resting upon heavy brackets, and in the armor-like revetment of ashlar stones, often with rustic bosses. Still, they have not the forbidding and secluded character of the feudal castles of the North, and their light towers, often rising directly from the main cornice,—instance the Palazzo Vecchio at Florence,—are more attractive than are the clumsy barbicans of France and Germany. The broad windows are frequently bordered by elegant and graceful decorations, which improve the effect of the entire structure, and give that pleasing impression always resulting from the combination of delicacy and refinement with massive power. The proud magnificence of these buildings is equalled by the beauty of their proportions and by the simplicity of their arrangement, the practical requirements being entirely fulfilled without that subordination of the general design to the irregularities of the site which is often so unpleasantly felt in the secular edifices of the North. From the Palazzo Publico at Piacenza, A.D. 1281, to the two lower stories of the Palace of the Doges at Venice, referable to the fourteenth century, many splendid structures of the kind still form the pride of the municipalities of Northern Italy. Not less interesting are the open colonnades, intended for assemblages of

the populace, for tribunes, or for mercantile purposes, among which the Loggia dei Lanzi at Florence is typical. And a similar artistic importance is attached to the halls of the guilds, and even to those of benevolent societies, such as the Bigallo at Florence.

Scarcely less important are the dwellings of the nobles and wealthy citizens. Siena, for instance, possesses a great number of imposing palaces, not only grouped around the chief square of the city, near the Town Hall, but in the thoroughfares and even the narrowest streets (*Fig. 371*).

Examples are to be found in the smallest towns. Palatial dwellings are, however, most frequent in Venice, where a character of great individuality was developed in the façades, the scant ground available for building having led to a cramped arrangement of the courts. Moreover, the attractions of the lagoons and canals induced the citizens to place the chief rooms towards the front, where the artistic decoration was thus naturally concentrated. The great



Fig. 371.—Street View in Siena.

depth of the buildings rendered large and numerous windows necessary, and led to the adoption of a peculiar system of tracery by which the apertures were multiplied. A similar method of design has been noticed in the cloisters and palaces of Southern Italy, but the great advance in the north of that country is evinced by a comparison of the clumsiness and rudeness of Campanian structures with the perfect proportions and elegant refinement of Venetian façades. The culture of Northern Italy was of the greatest promise for the future.

SPAIN.

The remaining countries of the Occident were less independent in regard to the Gothic style. A certain degree of receptiveness in this respect is everywhere observable, and a higher architectural development takes the place of the former rudeness and helplessness; but the beginnings were always due to the influence of foreign designers, and it was long before the native artisans had attained sufficient training to carry on the work without such assistance. France and Germany provided the masters,—the former for Spain and the Western Netherlands, Germany for the countries bordering it on the north and east.

Christian Spain, after the beginning of the thirteenth century, no longer stood so entirely in an attitude of defence. The Christian kings, who had hitherto but rarely been united, rose against their Moorish enemies with one accord, defeating them in the battle of Las Navas de Tolosa, A. D. 1212. The Moors were finally reduced to the territory of Granada, under the glorious reign of Ferdinand III. the Holy, between 1217 and 1252, who in 1230 united the kingdoms of Leon and Castile, and conquered Cordova in 1236, Murcia in 1241, and Seville in 1248. The piety of this king, the gratitude for great victories and the rich booty, combined in exciting and furthering the desire to emulate France in the construction of cathedrals. The development of the French Gothic, which under Ferdinand's contemporary, St. Louis IX., had attained its greatest height, naturally exerted an important influence in Spain, especially as the Holy War had brought troops of French knights, with many followers, from beyond the Pyrenees. The Spanish kings, by their personal qualities as well as by their military successes, commanded the respect of the entire Occident, and took equal rank with the rulers of France and Germany, so that not only was the throne of Castile graced by French and German princesses, but Spanish kings were considered eligible to the imperial power of the Western Empire.

At the close of the twelfth century transitional forms had occasionally been employed side by side with the Romanic. The cathedrals of Salamanca, Zamora, and Sigüenza, the Church of S. Vicente

and others of Avila (*Fig. 372*), and even the Cathedral of Lerida, built between 1203 and 1278, belong to this class. It seems to have been due to the personal influence of Ferdinand III. that through the construction of the cathedrals of Burgos and Toledo the Gothic style became universally predominant in Spain, being, even in its first appearance, as perfect as in the contemporary edifices of France. The design of the two structures is referable to about the same period, the Cathedral of Burgos having been founded in 1221, that of Toledo in 1227; but the latter was completed in a shorter time, and hence has a unity of composition not possessed by that of Burgos, even before the construction of its cupola in 1539. The imposing

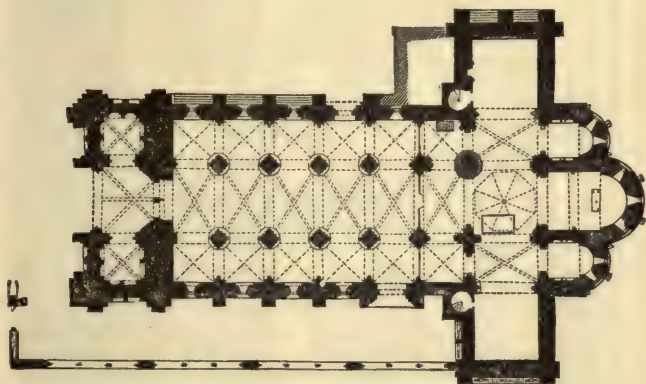


Fig. 372.—Plan of S. Vicente at Avila.

five-aisled Cathedral of Toledo, in plan an imitation of Notre-Dame of Paris, is 113 m. in length and 57 m. in breadth, while the height of the nave is 45 m., the building thus covering an area far greater than that of the largest French churches. The greater elevation of the inner side aisles rendered the introduction of galleries in the nave impossible, but, on the other hand, admitted of triforium and windows in these aisles as well as in the nave. This arrangement provided an exceptional number of apertures for lighting the grand interior,—the vaults of which are supported upon eighty-eight piers,—and, though somewhat at the expense of the nave, produced a harmony of the whole not attained by the Cathedral of Paris with its gloomy side aisles. The unity of style is slightly disturbed by the

Moorish cusped arches of the triforiums, which the architect may have introduced from a respect for the traditions of the ancient town of the Moslems (*Fig. 373*). The irregularity of the ground and the narrowness of the space impair, in some degree, the effect of the exterior, at least upon a nearer view, so that in this regard the much smaller Cathedral of Burgos is more imposing as well as more pleasing. Its magnificent façade, with two towers, is one of the



Fig. 373.—View of the Choir of the Cathedral of Toledo.

finest examples among the few works of the kind which have been completed.

Although, after the death of Alphonso the Wise, son of Ferdinand III., A. D. 1284, the prosperity of Spain somewhat declined, the works begun during his reign and that of his father were continued in the fourteenth century, and new constructions of importance were undertaken even in the fifteenth. Foremost among the earlier

group is the Cathedral of Leon, the plan of which resembles the French models even more closely than do those of Burgos and Toledo. A difference appears, however, in the disposition of the façade, and throughout the building there is a certain lack of unity in the design, the slender clustered supports and the elaborate windows of the nave dating from a comparatively late period. To the same class belongs the fine Cathedral of Barcelona, begun in the thirteenth century and completed in the course of the fourteenth, with the exception of the still unfinished cupola. The Cathedral of Valencia, founded in 1262, is referable to the same period. One Juan Franck, who in the fourteenth century was intrusted with the direction of the work, might be taken for a native of the Netherlands, were it not that the traceries of the northern façade and of the cupola tower clearly betray German characteristics.

Among the new constructions begun during the fourteenth century, the choir of the Cathedral of Gerona, built between 1312 and 1346, closely follows that of the Cathedral of Barcelona. The general effect, however, was here entirely altered by the arrangement of the nave, which, equal in width to the choir, was rendered unpleasantly bare by the combination of the three aisles into one, the vault thus becoming of exceptionally great span. This may possibly have been suggested by the Cathedral of Alby, in which a single aisle had resulted from the employment of the buttresses for barrel-vaulted side chapels. At all events, it cannot be assumed that the churches with equal aisles, frequent in Northern Spain,—instance S. Maria at Tolosa,—were developed in imitation of the French Cathedral of Poitiers, as their round supports and stellar vaults exhibit the influence rather of Germany or of the Netherlands. The Cathedral of Saragossa also has the system of equal aisles, combined with elaborate reticulate vaults, and a preference for both these forms can be traced even as far as the Balearic Islands.

The largest Gothic cathedral of Spain, that of Seville, was built in the fifteenth century. After the town had been taken by the Moslems, its early Christian cathedral had been transformed into a mosque and greatly enlarged. King Ferdinand, who reconquered Seville and gave back the church to Christian worship, thought as little of reconstructing the building as he had that of Cordova,

where, as late as 1523, the Gothic choir was so incongruously added to the Moorish hall. In the year 1401, however, the Chapter of Seville resolved to demolish the mosque, excepting only the Court of the Oranges and the minaret,—the Giralda,—and to erect upon the site a magnificent Gothic cathedral, which, like the Mosque of Abderrahman at Cordova, should surpass all other structures of the kind in extent and grandeur. This gigantic work, 198 m. long and 79 m. broad, exceeds the dimensions of the cathedrals of Toledo and Cologne, but does not equal these edifices in artistic significance. The size of the building caused its completion to be delayed into the sixteenth century, and the termination of the choir, as well as the details of the upper part of the structure, show the forms of the Renaissance. Still, the interior is not without unity of effect, the piers being of the same form in all the five aisles, and the tracery rendered harmonious by the general adoption of the French flamboyant style.

The dimensions of this grand work prevented that excess of ornamentation which is characteristic of the later Gothic of Spain, and is especially noticeable in the smaller churches. Spain in this respect followed the neighboring provinces of France; in the magnificent façade of S. Pablo at Valladolid (*Fig.* 374), at least, the resemblance to those of Poitiers and Angoulême (compare *Fig.* 216) is unmistakable. No influence of the elaborate Italian façades, such as those of Siena and Orvieto, can be assumed in view of the inferior and inorganic decorative system of Spain. The southern side of the exterior of the Capilla Real at Granada, which alone has been preserved, is remarkable for its regular arrangement of emblems and coats of arms; a similar ornamentation appears also in the interior of the votive Church of San Juan de los Reyes at Toledo, and in the beautiful cloistered court connected with it.

A great number of Gothic palaces, convents, hospitals, and dwelling-houses are still preserved in Burgos, Valladolid, Toledo, Valencia, Barcelona, and other towns. Fine examples of decoration are the portal of the Convent of S. Gregorio at Valladolid, and those of the hospitals Casa del Nuncio and S. Cruz at Toledo, etc. Several high-altar pieces are similar in character to the before-mentioned façades; their frames and panels show reminiscences of the

Byzantine and Romanic metal-work, from the Pala d'Oro down to the bronze gates of Germany. The architectural structure, however, which is the chief feature of the corresponding German works is here of subordinate importance. A number of Gothic funeral



Fig. 374.—Façade of S. Pablo in Valladolid.

monuments, particularly the royal sarcophagi in the Cartuja de Miraflores near Burgos, are of great magnificence, being scarcely inferior in elaboration to the tombs of the Burgundian dukes in Dijon.

It was not until late in the Gothic period that Portugal began

to emulate Spain in artistic activity. The fine Convent of Batalha, commenced in 1390, does not, however, exhibit any great individuality, although the forms are more full and flowing,—a difference in character corresponding to that between the Portuguese and Spanish languages. In both countries the Moorish influence is noticeable in the frequent employment of the horseshoe and cusped arches, the arabesque traceries, etc. In general, the later Gothic of the peninsula is characterized by a luxurious overgrowth, this being especially manifest in the superabundant curled ornamentation of the capitals, in the heavy crockets and finials, consoles and pinnacles.

THE NETHERLANDS.

The position of the Netherlands in regard to architecture, at the beginning of the period in question, is best exemplified by the Cathedral of Tournay, in which Norman, French, and German elements appear side by side in the most incongruous manner, without any attempt to combine them into one harmonious whole. At first German, particularly Rhenish, influences predominated, as during the previous epoch; but the Romanic system was gradually given up, the artistic taste inclining more towards the French models. This tendency was greatly furthered by the long connection of the Chapter of Tournay with Noyon, and was extended beyond the limits of the diocese through the importance of the cathedral of the former town (*Fig.* 375). But in general the sympathies of the Walloons were Gallic, and the German element disappeared more and more, even from the district of the Meuse, where the culture had originally been Rhenish.

Throughout the first quarter of the twelfth century the transitional style continued predominant. The supremacy of the French Gothic first became manifest in the Netherlands in the choir of Sainte Gudule at Brussels, begun in 1225; even the Choir of Tournay, begun in 1242, was subjected to the new influences, notwithstanding the marked contrast between the additions and the previously existing parts of the structure. The other ecclesiastical edifices of Belgium, those of Tongres, Ghent, Louvain, Diest, Ypres, Bruges, and Dinant, all founded between 1240 and 1260, follow the

same tendencies, although often retaining transitional features. This hesitation in point of style was not entirely overcome until the construction of the magnificent cathedrals of the fourteenth century: S. Rombout at Mechlin, begun after 1341; the Cathedral of Antwerp, begun in 1352, and, with exception of the tower, completed in 1422; and that of Louvain, built between 1373 and 1433. The Cathedral of Mons, belonging to this group, is as late as the fifteenth century.

Some national peculiarities are observable from the first, chief among which is the greater breadth in comparison to the height.

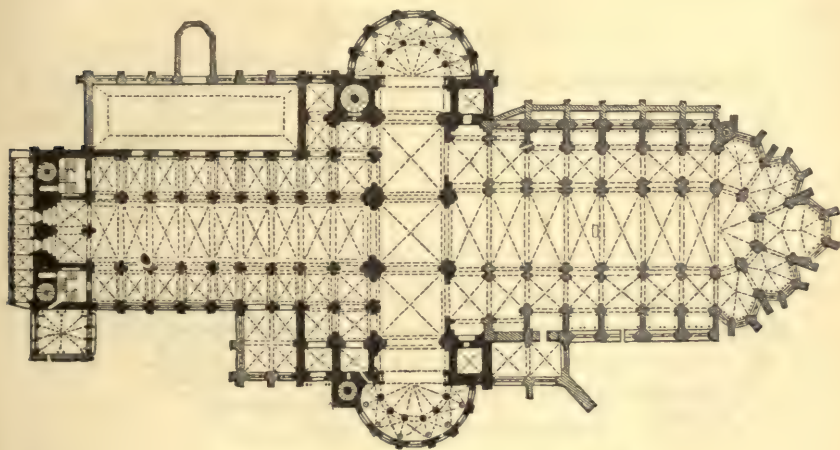


Fig. 375.—Plan of the Cathedral of Tournay.

While the altitude of the nave is rarely more than twice its breadth, five-aisled constructions are frequent. The Cathedral of Antwerp (*Fig. 376*), even, has seven aisles, being the only example of the kind in existence. A fine effect of perspective results from this arrangement, and compensates for the want of memberment in the columns. Through an imitation of the early Gothic details of France, plain supports, like those of Antwerp, continued in common use in the Netherlands. A further difference appears in Belgium in the termination of the choir. The surrounding passage and radial chapels are simplified in a most rational manner: the vault of each chapel being united with that of the corresponding part of the surrounding pas-

sage,—a great improvement upon the complicated French system. This innovation, which may have been based upon the arrangement of the choir at Soissons, is first noticeable in the choir of Tournay. Beyond Holland and Belgium it was only adopted in the districts of the Baltic, whither it had doubtless been introduced from the Netherlands. The somewhat heavy character peculiar to the exterior of the Belgian cathedrals is particularly noticeable in the façades. These rarely have two towers, those of the cathedrals of Brussels and Antwerp being exceptional; the aim was rather directed towards an imposing height of the single tower placed either be-

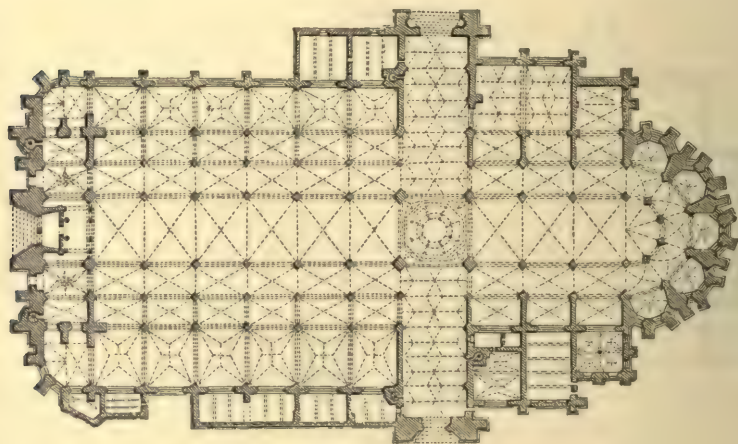


Fig. 376.—Plan of the Cathedral of Antwerp.

fore or above the western façade. The proposed height of the towers of the Cathedral of Mechlin and the Church of Wandru at Mons was the greatest ever attempted, being respectively 170 m. and 180 m. One of the towers of the Cathedral of Antwerp was completed at a subsequent period, but those of Mechlin and Mons have not reached the height originally intended.

In conformity with the municipal character of the communities of the Netherlands, similar in this respect to the towns of Upper Italy, much attention was devoted to the erection of civic buildings. The town-halls and the edifices for commercial purposes, both provided with towers, became of great importance, especially in the

Western Netherlands. The Guildhall at Ypres, completed in 1304, and that of Bruges are the oldest, but those of Louvain, Mechlin, and Ghent are not much later. Town-halls were not built before the second half of the fourteenth century: open squares, or the upper stories of the commercial halls, having previously been used for public assemblages. The town-hall of Bruges, built in 1377, was the first edifice of the kind erected in the Netherlands. This was followed, in the beginning of the fifteenth century, by the town-hall of Brussels, which is far more spacious than the former, and is celebrated for its imposing tower, at once belfry and lookout. The height of this is 102 m. The charming and richly decorated town-hall of Louvain, built between 1448 and 1463, exemplifies the pride of the citizens in such monuments of municipal supremacy. Structures of this kind were erected even as late as the sixteenth century; instance the town-hall of Oudenaerde.

In artistic respects, Holland presented a greater contrast to Belgium at the beginning of the Gothic period than at its close. Dutch architecture did not, at first, stand in so close connection with that of France as with that of Westphalia, Saxony, and even Cologne. This is shown, for example, by the Cathedral of Utrecht. In the fourteenth century the influence of Germany decreased, owing, in great measure, to the French tendencies of the dynasties of Hainault, Bavaria, and Burgundy. But in the architecture of Holland there still remained a certain bourgeois simplicity, resulting from the character of the people, as well as from the prevalence of brick as a building material. The memberment of the exterior is very scant, the tower being heavy and without ornament, or omitted altogether, as in St. Bavon at Haarlem and St. Pancras at Leyden. As to the interior, equally plain, the clerestory wall is supported upon cylindrical columns, and has no triforium apertures, their place being taken by mullions and arches in relief. The lines of the tracery are rude and heavy. Vaults of masonry were seldom attempted even in brick, imitations in wood being substituted, often of elaborate stellar forms, as in the two last-mentioned churches. Wooden ceilings of this kind permitted a wider span of the nave, and the reduction, or even the entire omission, of the buttresses. A certain spaciousness and grandeur is often attained in these edifices, the

effect comparing favorably with the means employed. But they are always of a prosaic character, and their bareness has been increased by the destructive work of the Iconoclasts, who removed the altars and pictures, and destroyed the glass windows,—in some cases even the traceries.

SCANDINAVIA AND THE COUNTRIES OF THE EAST.

The Gothic style of Norway differs entirely from that of the other countries of Scandinavia, being influenced chiefly by England, while Denmark and Sweden derived their architectural methods from Germany. In the mountainous tracts of the Norwegian coast, wooden constructions, such as those previously described, continued to be erected, but in the larger towns stone edifices of greater importance came into vogue. Chief among these latter, in regard to dimensions and artistic merit, is the Cathedral of Drontheim, but its various parts are referable to widely different periods. It is hence impossible to derive from it any clear conception of the development of the national architecture, or to distinguish which of the features, occurring side by side with those of the English Gothic, are essentially Norwegian, and which may be referable to the caprice of the builder. It is only certain that, in the course of the epoch, the importation from England gradually diminished, and was replaced by that of Germany.

Sweden received the Gothic directly from France. A French architect, Étienne de Bonneuil, was called in 1287 to superintend the erection of the Cathedral of Upsala, and brought with him his whole staff of workmen. These relations, however, could not be of long duration, owing to the distance of France, and the difficulties of communication between the countries through the gulfs of Finland and Bothnia. Architectural methods and technical training were more easily introduced from the German provinces of the Baltic, the influences of which are unmistakably evident in the Swedish edifices of the fourteenth and fifteenth centuries. Even Denmark, though so much nearer to France, was, in artistic respects, almost entirely dependent upon Germany, with whose culture it had been intimately connected since the age of Charlemagne.

The case was similar with Poland, Hungary, and the neighbor-

ing countries. The influences of the West found here the more ready acceptance because of the pronounced antagonism to the tendencies of their neighbors upon the East—Russia and the declining Byzantine empire. Great architectural activity could not be expected of a people who, from the earliest times, had been at home in the saddle or the wagon rather than in fixed abodes, and to whom arms and the trappings of horses were more important than domestic furnishings. Still, in Cracow, the capital of Poland, and in Kaschau, the episcopal city of the Magyars, there are some noteworthy edifices, of a style evidently derived from Germany, those of the former town following the architectural methods of Silesia and Prussia, those of the latter being influenced by Bohemia and the Eastern mark. Scarcely a trace of any national individuality can be perceived in these vast districts, which were far more dependent upon the civilization of Germany than was Western Europe upon that of France.

Through the Crusades, France, aided by all the Christian powers of the Occident, extended its culture beyond the limits of Europe. French methods were established in the East perhaps even earlier than in Germany and England. Soon after the first appearance of the Gothic style in the Ile de France, French architects were employed in the Kingdom of Jerusalem, which, as is well known, was overthrown before the end of the twelfth century. The same influence and activity were displayed in St. Jean d'Acre, which remained in possession of the Christians until 1291; in Cyprus, conquered in 1191; and, finally, in Rhodes, occupied by the Knights of St. John between 1309 and 1522, where the later style flourished as the early French Gothic had done in Jerusalem. Few Christian monuments of the period have been preserved in these places. That which was not destroyed by the fanaticism of the Moslems, or by the frequently occurring earthquakes, was ruined by neglect.



Fig. 377.—Monuments in the Choir of the Princes, Church of St. Elisabeth, Marburg.

GOTHIC SCULPTURE.

THE conditions and ideals which, towards the close of the Middle Ages, superseded those of the Romanic epoch, found their grandest exponent in architecture. Not, however, their most direct. The static and abstract requirements of architectural design permitted only a symbolical expression of the most characteristic sentiments of the time. They could give but a faint idea of the more independent religious conceptions of the individual,—of the removal of higher culture from the cell of the monk to the forum of every-day life,—of the more intimate sympathy of man with nature,—and of all the other changes of far-reaching importance. It is, indeed, possible to perceive in the architecture of the period that an immense change had been wrought in social relations; but the nature of this change cannot thus be judged.

Sculpture and painting, dealing as they do with the representation of human beings, or human conceptions of divinities, and of human sentiments and actions, bear a more direct and intelligible testimony. They show that the religious feeling, far from having

been diminished, had exchanged its ascetic and monkish character for more intimate and less conventional relations,—for a more confident personal fervor. They show that austere dogmatism and dry scholasticism had been supplanted by a faith far more mystic and adaptable,—the doctrine of salvation being no longer conceived as an epic, but cherished as a lyric sentiment. Hence the archaistic traditions of culture gave way to sensitive and individual views of life, the schematic forms of Byzantine art to more various modes of expression. Repelling dignity became amiable grace; soulless and unapproachable abstractions were converted into intimate realities. The awakening poesy manifested itself in the arts, and not less in religious than in secular representations. The greater refinement of chivalry, of courtly grace and manners, broke through the narrow limitations of ecclesiastical ceremonialism, and made itself evident in the forms and gestures portrayed in mundane subjects. Both religious and profane art were freed from blind insusceptibility to physical perfection, and were opened to every charm of beauty. Youth took the place of age; in contrast to previous usage the ideals were feminine rather than masculine, and types of virgin loveliness were more prominent than those of matronly dignity. The highest eminence was assigned to the representation of the Virgin Mother, who was conceived at once as the Queen of Heaven and as a princess-bride.

The emancipation of artistic activity from monastic limitations, and the great pleasure in creation felt both by the artists and by the general public, rapidly increased the technical ability, as well as the occasions for its exercise. It cannot, however, be said that the subjects available for representation had been extended. The symbolical cycles of the Christian doctrine became of less importance, while scenes chosen from the Old and New Testaments, from the Parables, and their typological comparisons, were more rare than during the Romanic epoch. Sculpture, especially, was, in many-figured reliefs, limited to an exposition of the Passion and the Last Judgment, and in single figures to the Virgin and certain saints. These latter were not conceived in that remoteness from human interests which had been their characteristic during previous periods, but as patrons of suffering humanity, and as intercessors with the Divine Power,—

always ready with help and grace. These relations are emphasized throughout; a loving sympathy speaks from every face.

Ecclesiastical art became more human. Christian charity and devotion, as practised by the pure in heart, is evident in every feature, while the artistic treatment, emancipating itself from the traditional methods, approached more and more towards truthfulness to nature. This improvement was, however, slow. Realism did not appear until the close of the period. The figures were ideal,—even typical. The funeral monuments themselves, although generally portraits of the deceased, long continued to be executed with but little study of nature, and when this did appear it was in the accessories rather than in the principal figures. Even in those cases where the sculptor had seen the person represented, the lineaments were formed after a general model, which was employed also in the portrait-statues of those who had died long before. As late as the fourteenth century the attempt of an artist to study the features of the Emperor Rudolph of Hapsburg for the design of a monument, was derided as “alberner Schick.” This class of sculptures, nevertheless, constantly tended to realistic studies, which varied and gave life to the ideal types.

FRANCE.

It is a matter of surprise that the brilliant beginning of Gothic architecture in France* was not accompanied by a corresponding advance in sculpture. The western portal and façade of the Abbey Church of St. Denis and of the Cathedral of Chartres are decorated with statues referable to the years between 1140 and 1150, but these are but little superior to the Burgundian productions of the first half of the twelfth century. It is plain that all artistic energies were directed towards the development of architecture, sculpture remaining in the hands of artists of the old school, who were perhaps called from Burgundy. If these artists made any concession

* A. du Sommerard, *Les Arts du Moyen-âge*, Paris, 1838–1846.—J. Gailhabaud, *L'Architecture du V.—XVII. siècle et les Arts, qui en dépendent*. Paris, 1858.—P. Lacroix, *Les Arts au Moyen-âge et à l'époque de la Renaissance*. Paris, 1869.—Éméric David, *Histoire de la sculpture Française*. Paris, 1853.

to the new style, it was only in favor of verticalism and exaggerated attenuation, while the monotony of the heads, the rigid attitude of the figures, the meagreness of the bodies, and the parallel folds of the drapery exceed in stiffness even the works of the Byzantines.

These conditions continued essentially the same throughout the twelfth century, that is to say, during the early period of the French Gothic. Slight traces of an awakening originality occasionally appear, as in the portals of Senlis and Mantes, but the want of action is still painfully felt. These defects seem first to have been in some measure overcome in the sculptures of the façades of Laon and of Notre-Dame of Paris, which can hardly have been executed before 1210. The figures here, though somewhat constrained, are no longer rigid; they are not lifeless, but chaste, self-contained, and severe. They compare with the works preceding them as do the productions of the schools of Attica and Ægina, during the first decades of the Persian war, with the older statues, such as the Apollos of Tenea and Thera. A further advance is evident in the sculptures of the façade of the Cathedral of Amiens, dating from about 1230 (*Figs. 378 and 379*). The constraint of the figures upon the façades before mentioned is here softened into a certain shy modesty, rendered the more attractive by the excellent but unobtrusive technical treatment. The solemn, upright bearing of the figures is well adapted to the architectural framework; the garments, unpretentiously draped but carefully executed, correspond to the simple attitudes; and the seriousness of the faces is in harmony with the sober gestures. Entire freedom of action, accurate truth to nature, and an artistic appreciation of sensuous beauty were, however, still beyond the aspirations of the unassuming artist.

When, in the time of Louis IX., Gothic architecture reached its



Fig. 378. — Statue of Christ, from the Cathedral of Amiens.

highest development, sculpture also attained to a similar degree of perfection. The decorations upon the façades of the transepts of the cathedrals of Paris and Chartres, those of the Sainte Chapelle at Paris, and especially those of the portals of the cathedral at Rheims, are among the noblest works of Christian sculpture, and, until the age of Sluter, the most perfect productions of this art north of the Alps. Archaic naïveté has developed into noble simplicity, which, sure of its aim, undertakes its task with surprising confidence, able as well to render grandeur and dignity as grace and beauty. The subject is always well conventionalized, varied but not labored; the conception simple and natural throughout; the action full of elegance and reserve, the bearing courtly, but never affected. The artistic merit is not always equal in the details, as is not surprising when it is considered that hundreds of statues, and reliefs with many figures, were required to be executed within a short time by various hands. Still, want of talent and of technical ability are seldom or never to be observed, this being a proud evidence of the high standard maintained by the leading artists, and indeed by the entire school.

The Cathedral of Rheims has been called the Parthenon of the Middle Ages. This is, however, going too far; for though the edifice, both in its architecture and sculpture, may be considered as the finest creation of the Middle Ages, still it is not of that absolute perfection which characterizes the work of Iktinos and Pheidias. The sculptures of the cathedral are by no means entirely free from inequalities in composition, from errors in proportion, and from exaggeration of facial expression. The course of development was moreover entirely different from that of Greece, in this case the severity of the preceding works not having led to the grandeur of the productions of Pheidias, but to a grace and elegance of style rather akin to that of Praxiteles. The masters of Rheims were more successful in rendering youthful and maidenly delicacy, tender and sympathetic dream-life, light limbs and flowing draperies, than the serious dignity and the strongly marked character requisite for manly figures,—which latter subjects are, in the Cathedral of Rheims, often wanting in energy of form and expression. The parallel only holds good when the relations in which mediæval art stood to the antique

are considered, and the great inferiority of the Middle Ages in the delineation of forms, together with the naive and modest requirements of the time, are fully taken into account,—these not admitting of a just comparison with the trained excellence of Hellenic art.

The good conventionalization which characterized the sculpture in the time of Louis IX. was scarcely maintained until the end of the thirteenth century. It was inevitable that this graceful loveliness should degenerate into sentimentality, the sweet expression of the finely-cut features into a stereotyped and coquettish smile, the delicacy of the hands and limbs into a weak effeminacy, the elegant suppleness of motions and the easy folds of the draperies into affectation. During the latter part of the period the popular taste tended to routine and striving after effect. By the end of the century a conscious elegance and affected grace had become prevalent. Thus sculpture, which in 1200 was stiff and formal, and had attained such great life and character by the middle of the century, degenerated, at its close, into affectation. How marked the contrast is most plainly shown by a comparison of two statues of the Virgin upon the same edifice, one of which is referable to the beginning, the other to the close of the thirteenth century (*Figs.* 379 and 380).

The decadence of French sculpture in the fourteenth century went hand in hand with that of architecture. It was affected by the same influences which in the art of building led to the weak flamboyant style. In both branches of art these tendencies are explicable by the transformation which had taken place in the life of the higher classes of society: the austere chivalry had declined into courtly elegance; the earnest and even fanatical piety of the time of the Crusades had been succeeded by the vain gallantries of the Court of Love, and by the frivolities of the tournament. Between the art of the thirteenth century and that of the fourteenth the same contrast is observable as between the court of Louis IX., the founder of the Sainte Chapelle, and that of Charles V., the builder of the Hotel de Saint Paul. The technical execution of the latter period is fully equal, or even superior, to that of the former; the forms are more universally correct and the figures more charming; but in place of freshness of conception and naive devotion, there

appears a shallow brilliancy and a seeking after effect ; instead of an honest endeavor to master the material, a well-trained but mechanical facility. The artists no longer worked with a sincere enthusiasm for the subject, but rather displayed their abilities for the sake of their own renown. It is characteristic that while the name of no



Fig. 379.—Madonna from the Cathedral of Amiens, dating from the beginning of the thirteenth century.



Fig. 380.—Madonna from the Cathedral of Amiens, dating from the end of the thirteenth century.

artist is attached to the older works, not even to the fine statues of the Cathedral of Rheims, the artists of the skilfully executed reliefs upon the southern choir screen of Notre-Dame in Paris, completed in 1351, have, by inscriptions, perpetuated their names,—Ravy and Jehan le Bouteiller.

In general, religious sculptures were more frequently employed

for the decoration of the exterior, especially the façades, than for the interior of the churches. Within the building a branch of sculpture almost secular in character was prevalent, namely, that of the funeral monuments. From the awakened desire for personal notoriety it naturally resulted that these monuments were not, as formerly, decorated with mere symbols and inscriptions, but with a portrait-effigy of the deceased. When the monument formed the lid of a tomb in the pavement, or of a sarcophagus, the likeness represented the body lying in state, but when the stone was erect upon the wall or upon a pillar, the figure was sometimes conceived as living and standing. Although from the nature of this branch of art a more realistic treatment was required, this tendency makes itself but slightly evident during the twelfth century, the figures and draperies remaining conventional, and the heads without great individuality. This is best illustrated, among the works which can be accurately dated, by the two royal tombs in the Abbey of Fontevrault (Anjou), representing the English kings Henry II. (d. 1189) and Richard Cœur de Lion (d. 1199). The rigid position of the bodies, the idealized, expressionless heads, and the stiff parallel folds of the garments show scarcely a trace of the new style. The monument of the widow of Henry II., Eleanor of Guyenne (d. 1204), shows some indications of a new artistic life, while the stone erected in L'Españ near Mantes, for the widow of Richard, Berengaria (d. 1219), entirely follows the new manner.

Traces of the old conventionality are still to be observed in the funeral monuments of the time of Louis IX., in St. Denis, and more especially in those of the Merovingian and Carolingian kings, and of the Capets, most of which structures were restored between 1263 and 1264. In these latter certain archaic traits resulted from the subject, since it was wholly impossible to attempt any individual likeness or historical characterization. It could not, however, have been really necessary thus to avoid even the slightest variation in the position, the draperies, and the details; or to form the hands,—the right holding the sceptre and the left the robe,—the long, straight folds of the tunic, the simple cloak, the crown of fleurs-de-lis, etc., all according to a fixed model. The effigies of the contemporaries of Louis IX. also show little personal likeness, although the

portraits of the princes Philip and Louis, who died at an early age, have at least the appearance of youth instead of following the usual types, which made scarcely any distinction as to sex and age. In other respects, as well, these two figures are not without artistic merit. A true portrait likeness first appears in the monuments of Philip III. (d. 1285), and of his wife, Isabella of Arragon (d. 1271), works of a simple beauty and dignity, in which the archaic character is entirely overcome, but as yet the rigor of death is not softened by that expression of peaceful repose observable in the works of this kind after the beginning of the fourteenth century. This expression may be noticed in several monuments of St. Denis, especially in the portraits of Count Evreux (d. 1319) and his wife, Countess of Artois (d. 1311). The elegance and touching delicacy of the latter is truly fascinating. The union of realism and idealism, which here appears in its fullest perfection, clearly shows, however, that the artist assigned more importance to the artistic effect than to individual likeness. Thus, upon the tombstone of the son of Louis X., the Prince John, who died at the age of five days, the infant is represented as a well-grown boy,—in which instance, at least, there can be no question as to the want of likeness.

Sculptured decorations of figures are not restricted to the royal sarcophagi in St. Denis, but are found upon tombs throughout France. These works, though not often equalling those of the capital, always bear witness to the excellence of French sculpture. This excellence continued to characterize the sculpture of funeral monuments until the middle of the fourteenth century. After this time the decadence of the art is unmistakable, even in St. Denis. The tomb of King John, who died in 1364, already shows that mechanical monotony and want of expression which is peculiar even to the better works of the following decades, and characterizes the last stages of this artistic development. That even those who gave the orders were aware of the debasement, is proved by the increased demand for artists from the Netherlands.

This employment of masters from the neighboring country was not new, and, at least in metal work, can be traced back to the Romanic epoch. The activity of France in this latter branch seems to have been limited to work in gold and silver, chiefly in Limoges and

its vicinity. It was here combined with enamel work, and, without losing its Byzantine and Romanic characteristics, gained a wider field than mere decoration of utensils, in which, during the Romanic period, Western France had followed the example of Lorraine. Besides several altar-pieces belonging to the time in question, mention must be made of the monument of Henry II. of England (d. 1189), in Le Mans, a tablet with life-sized figures executed in émail champ-levé. Among the larger reliquaries, that of St. Taurinus at Evreux, referable to the years between 1240 and 1265, first exhibits architectural details of the Gothic style.

Bronze castings are rare; the two more important tombs of bishops at Amiens, with the effigies of Eberhard of Fouillois, and Godfrey of Eu, the former of whom died in 1223, the latter in 1237, are so absolutely alike that they cannot deserve the name of portraits. It may be assumed that these and similar works were influenced by the before-mentioned foundry of Dinant, the "Dinantiers" still having the monopoly of bronze casting in France.

THE NETHERLANDS.

In the Netherlands themselves, Dinant seems not to have maintained its ancient renown. Still, the foundry existed at least until towards the close of the fourteenth century, as is proved by a candelabrum and a reading-desk at Tongres, inscribed with the name Jan Joseb of Dinant, and the date 1372. Two brasses in the Cathedral of Bruges, with the dates 1387 and 1423-39, recording the deaths of the persons there interred, show the figures wrapped in shrouds, these being rendered with extraordinary taste and ability, evidently resulting from a close study of nature. But some doubt remains as to the place where these works originated, similar productions being known in England as "Cullen plates,"—that is to say, of Cologne.

When Flemish sculptors are mentioned as being employed at the French court, they were generally not bronze founders from Dinant, but sculptors in stone, probably belonging to the school of Tournay. Two masters from Liege, Joan and Hennequin, in the second half of the fourteenth century, worked upon the monuments of King Charles V. in St. Denis and the Cathedral of Rouen. An-

dré Beauneveu, from Hainault, who was employed by John of Berry, brother of Charles V., was famed both in France and England as the best painter and sculptor of his time. The stone sculptures, referable to the years between 1340 and 1440, still existing at Tournay, show this school to have been superior to all others of the period, and to have fully equalled in excellence the schools of painting of the Van Eycks and of Van der Weyden in Flanders and Brabant.

It is probable, though not susceptible of absolute proof, that the artistic activity which at the close of the fourteenth century obtained in Dijon, the capital of Burgundy, was connected with Tournay. At all events, when the Netherlands came into possession of Burgundy, Philip the Bold and his son John the Fearless imitated the custom of the last Duchess of Brabant and of the last Count of Flanders in keeping artists, chiefly painters, in employment at their court. The decoration of the Carthusian cloister of Dijon, which Philip, in the year 1383, had founded as his last resting-place, required trained sculptors as well as painters. Thus we find one Jacob de Baerze, from Dendermonde in Flanders, a carver of figures, together with the painter Melchior Broederlam (Broedlain), engaged in the execution of elaborate altar-pieces. These works, now in the Museum of Dijon, hold a middle place between the art of Cologne and that of France, this resulting naturally from the geographical and commercial conditions of the Netherlands. Together with the artists just mentioned, the French sculptors Jean de Menneville and Thierriion Voussonne were employed upon the tombs of the Chartreuse, while somewhat later a painter from Cologne, by the name of Hermann, worked upon the altar-pieces. The Dutch sculptor Claux Sluter de Orlandes, who since the year 1384 had taken part in the decoration of the convent, became superintendent after the death of Menneville, and held this office for twenty-one years. His superiority over all his predecessors gave him a position similar to that of the Pisani in Tuscany. He trained his nephew Claux de Werne (Verwe) to be his assistant and successor. Others who were engaged in the work, judging by their names,—Wuillequin Seront, Hennequin Prindale, Hennequin de Bruxelles, etc.,—must likewise have been his countrymen.

The character and excellence of the art of Sluter and his school

are fully recognizable in the works which have been preserved. Of the Church of the Carthusians nothing remains but the portal, in which the portrait-statues of the duke and his wife, remarkable for their careful execution and the freshness of their realism, are probably by Sluter's own hand. This is certainly the case with the existing remains of the so-called Fountain of Moses (*Fig. 381*), a hexagonal base, the chief ornaments of which are six figures of the prophets.



Fig. 381.—Statues of Prophets from the Fountain of Moses, in the Carthusian Convent of Dijon.

The forcibleness of the representation,—for instance in the Moses, which may worthily be compared with the celebrated creation of Michel Angelo,—the life like character of the bald-headed Isaiah and of Jeremiah, reading, are truly admirable, and show beyond all question, that the artist, who was probably trained in the school of Tournay, was in sculpture what Hubert van Eyck and Rogier van der Weyden afterwards became in painting.

The chief work of Sluter is the monument of Philip the Bold,

which was begun a few years later, in 1404, and is now in the Museum of Dijon. The figure of the duke, which was probably executed after a sketch made while the body was lying in state, by help of a death-mask and of a cast taken of the folded hands, is of striking realism, this having originally been increased by an extensive polychromatic treatment. Of still greater beauty and artistic significance is the procession of the mourners upon the four sides of the sarcophagus, which latter is of black and white marble, and in its architectural decorations imitates the forms of a Gothic cloister. The stiffness of the earlier Gothic portal statues has entirely disappeared in these beautiful figures of alabaster. The garments of the monks are quite free from the mechanical types, the motions are rendered with truth and assurance, the gestures of pain and lamentation are very expressive, although at times there is an exaggeration similar to that which appears in the productions of another artist of the school of Tournay,—the painter Rogier van der Weyden.

No wonder that such a work excited the greatest admiration. Its influence is to be observed in Dijon half a century later, in the monument of John the Fearless, notwithstanding the fact that, besides the Flemish artists Guillaume Anns and Jehan de Cornicke, two Frenchmen, Jehan de Droguès and Antoine le Mourturier, were engaged upon the work which, strange to say, was directed by a Spaniard, Jehan de la Verta from Arragon. The last circumstance shows plainly that the renown of Sluter's work at Dijon had extended even beyond the Pyrenees, and that before the time of Isabella, and the connection of the Netherlands with the Spanish crown, Spain had received from Flemish art those influences which in sculpture, also, are not to be undervalued. This is proved by the funeral monuments in the Carthusian Convent of Miraflores near Burgos. The Burgundian capital, in the fifteenth century, like Pisa in the fourteenth, and Nuremberg about 1500, was a centre of sculpture, whence the influence of the Netherlands, starting from the foundery of Dinant in the Romanic epoch, made itself felt in the neighboring countries. This influence, it is true, was not so extensive as that of painting, the ascendancy of which, unquestioned throughout Western Europe, was attained about the same time in Ghent, Bruges, and Tournay.

ENGLAND.

England,* in sculpture as well as in architecture, was almost wholly dependent upon France. Indeed, the relations were even more intimate in the former branch; for, while Gothic architecture in England had been preceded by the Norman Romanic style, which, not having originated upon British soil, had, in the course of time, though developed local peculiarities, there was no older sculpture of consequence in England to which the Gothic was obliged to accommodate itself. Two circumstances, however, gave somewhat of a national stamp to the imported art. The first of these was the greater importance attached to sculptured funeral monuments than to religious images, which latter,—though at times eminently successful, as in the cathedrals of Wells and Lincoln,—were but rarely brought into connection with the portal, where in France they had found their highest development. The second reason was the combination of the French with other foreign influences, among which those of the Netherlands and the Rhenish countries were fully equalled in importance by those of Tuscany.

The predominance of funeral monuments naturally furthered realistic studies, which were altogether more adapted to the national character than was the idealism of the French. A tendency to realism is noticeable in the earliest Gothic works of England, even when these were executed by foreign artists. A good instance is the tomb of King John (d. 1216) in the Cathedral of Worcester, which has recently been brought to light. Not only the costume, but the features of the face, are more true to nature and to the individual,—more closely imitated from the dead body,—than is the case with the tomb of Richard Cœur de Lion at Fontevrault. The monument placed above the heart of this last-named king in the Cathedral of Rouen is strikingly similar to that of his brother, King John, at Worcester, this making it probable that Norman artists were employed in both cases.

* C. A. Stothard, *Monumental Effigies of Great Britain*. London, 1817.—J. Flaxman, *Lectures on Sculpture*. London, 1829.—Ch. Boutell, *Christian Monuments in England and Wales*. London, 1849.

While in the tombs of prelates the solemn repose and the symmetrical position of the French figures was maintained,—instance the effigy of Bishop Bridport (*Fig. 382*),—in those of knights there was a liveliness of gesture which contrasted strongly with the quietness of death, indicated by the pillow under the head. This is of



Fig. 382.—Monument of Bishop Bridport (d. 1262), in the Cathedral of Salisbury.



Fig. 383.—Monument of William Longspee (d. about 1250), in the Cathedral of Salisbury.

course not so marked in the instances where the motion is restricted to an energetic turn of the head,—as in the monument of William Longspee (*Fig. 383*),—though even here the conception seems to have been derived rather from an upright than from a recumbent body. Not uncommonly the figure is represented as in the act of drawing the sword, or with the legs crossed. This latter position

is not necessarily significant of a Crusader, as is usually assumed in England, the same peculiarity being also observable after the time of the Crusades. The artist, however, had the right feeling in limiting the action to the figures represented in coat of mail, while the rigid position of the others is in harmony with the inflexible character of their armor of steel plates.

Italian and German influences early made themselves felt in England, together with the French, especially in metal work. King Henry III., who reigned between 1216 and 1272, called to his court German goldsmiths and masters of the mint, as well as Italian painters. And the employment of Italian sculptors, who in the thirteenth century far surpassed the painters of that country, is proved by existing remains. The finest among the royal monuments of the thirteenth century in Westminster Abbey, that of Henry III. and that of the wife of Edward I., Queen Eleanor, who died in 1290, are unmistakably to be ascribed to Italians of the school of the Pisani. Even the name of the artist, William Torell, may well have been Italian.

The influence of these works is to be traced in those immediately succeeding them, although these latter betray characteristics resulting from the combination of various models, and were probably executed by native designers. The possessions of the English kings in Western France, and the predilection for colored decoration, apparent in the English stone sculptures, naturally led to the adoption of the enamel work of Limoges in bronze monuments and in the inlaid parts of stone sarcophagi. Even more in vogue were the brasses, which, with or without engraving, were almost exclusively imported from Germany. The designation of these as "Cullen plates" suggests Cologne as the place whence they were chiefly obtained, while the similarity in style of the finest works of the kind to those of the coasts of the Baltic, especially Dantzic, indicates their derivation from the more Northern district. Engraved brasses attached to tombs of stone soon, however, became so common that the demand could no longer be wholly supplied by importations from abroad.

The works of the fourteenth century are, in general, far inferior to those of the time of Henry III. The native artists ceased to

depend upon models from the Continent, and their productions became more and more mechanical and uninteresting. Even the attempt to render the costume accurately was in some ways a disadvantage, for the dress of the higher classes had by no means improved in picturesque respects. The heavy and showy armor of the knights of the tournament, impeding the movements formerly permitted by the coat of mail, was as entirely without beauty or grace as were the richly-decorated and stiffly-laced court robes, which upon the monuments had superseded the soft folds of the ideal feminine dress. Moreover, the constant endeavor of the artists was to give expression to conceptions entirely opposed to those which had developed upon the Continent. While in other parts of Europe the representations became more easy and full of action, the English, whose tombs of knights had, in the thirteenth century, been superior to those of other nations, intentionally returned to an extreme rigidity in their attempt to give the clearest possible expression of death. These tendencies were in some respects suited to the subject, and were not wholly the outcome of a dry and unimaginative realism; still, the ideal characterization of death as a sweet sleep, which was the fundamental principle of the Continental conception, is far more poetical and preferable in every respect. Especially in the tombs of persons of lesser degree, where no signal effort was required of the artist, the stiff inanity of the English figures contrasts strikingly with the elegance and grace of design of the French, and with the spiritual expression of the German works. In the more prominent monuments, such as that of the Black Prince (d. 1376) in the Cathedral of Canterbury, these deficiencies are compensated by the excellence of the execution, especially in the details and accessories, and by the rich architectural treatment of the sarcophagi, the mural decorations, canopies, etc.

The ecclesiastical sculpture of the fourteenth century, which from the first had been less productive than in France and Germany, suffered grievously at the hands of the Puritan Iconoclasts of the seventeenth century. Still, enough remains to show that this branch of art had followed a course of development quite different from that observable in the funeral monuments. The elegance of treatment, which the English had derived from the Conti-

nent in the thirteenth century, was increased during the fourteenth, until the weak grace, corresponding to the flowing style in architecture, led in sculpture to a reaction, well to be compared with the perpendicular style. The sculptures of the façades and the porticos of the cathedrals of Lichfield and Exeter are, at least in part, skilful and harmonious in execution; the series of kings, especially, being of a dramatic effect, and having a certain historical significance. On the other hand, the effigies of this kind upon the façade of the Cathedral of Lincoln, dating from the close of the fourteenth century, strikingly illustrate the debasing influence of the perpendicular style upon sculpture.

In the fifteenth century the decadence of English art was so complete that, as in the beginning, it was necessary to engage foreigners in all really important undertakings. Even in France and Burgundy, where the Gothic style had originated, Flemish artists were preferred, and it was only natural that England should first apply for help to the neighboring Netherlands. The influences of Northern France, of Germany, and of Italy also made themselves felt. Notwithstanding the warlike character of the times, and the constant internal dissensions, the peculiar disposition of the English is already apparent: they generally considering works of art rather as material possessions than as opportunities for independent creation. Thus foreign countries more frequently exported their productions to England than affected it by their artistic traditions. To this must be added that the love of art manifested itself in the collection of small objects, and not in monumental works, sculpture in precious metals and jewels being preferred to that in stone. The material value of these trinkets was even enhanced by the fact that they were brought from afar. Thus, during all subsequent ages, the artistic possessions of England were chiefly of foreign origin, and native productions were altogether of secondary importance.

GERMANY.

At the close of the Romanic epoch, and even during the first stages in the development of Gothic architecture, France produced no sculptures equal in importance to those of Freiberg and Weichselburg. In the beginning of the thirteenth century, however, Ger-

many in this branch by no means kept pace with the rapid advance of France. The German productions of the transitional period were inferior to the sculptures of the French cathedrals, and as late as the second half of the thirteenth century, when compared with the before-mentioned Saxon works, show this branch of art to have remained at a stand-still, if not to have declined.

Notwithstanding the tenacity with which Germany clung to the Romanic style, a compromise was attempted in architecture by which, one by one, the constructive and decorative improvements of the French were introduced into the Romanic system. German sculptors endeavored to give new vitality to their art in a similar manner. The sculptures of the choir of St. George in Bamberg, consisting of fourteen reliefs which represent apostles, prophets, angels, etc., have at least something more of animation than the Romanic works. The same may be said of the sculptured decorations of the portals of the Church of Our Lady at Treves, of the Collegiate Church at Wetzlar, and even of the eastern portal of the Cathedral of Bamberg, also of those of the south portal of the Cathedral at Muenster, and of the western portal of the transept of the Cathedral of Paderborn, which are referable with certainty to the second half of the thirteenth century. In all these edifices of the transitional style the sculptured decoration is rather in harmony with the round-arched portals than with the Gothic features appearing in the other parts of these buildings.

At this period, however, the Gothic character was, so to speak, latent in sculpture, although an occasional attempt was made to free this art from the Romanic limitations. Those intimate relations with nature, the lifting of the veil which, in the Gothic, was attempted rather through feeling than through the understanding, that preponderance of ideal and spiritual conception over forcibleness of action which characterized Gothic art, and forms at once its strength and its weakness,—of all this there was as yet scarcely a trace. It was exceptional that any effort was made to temper ecclesiastical dignity with a touch of loveliness and grace; and a striving after truthfulness to nature in the nude figures, such as may be observed in the Adam and Eve of the portal at Bamberg, was still more rare. Even in this instance the traditional inflexibility and

the influence of the former classicism of Bamberg had not been entirely outgrown, the figure of Eve, especially, resembling in many ways the archaic types of Greek art. Still, some attempt is here apparent to shake off the mechanical character, and by close observation to attain a higher beauty of form than that of the conventional artistic traditions.

It was certainly not fortuitous that Saxony, which in Freiberg and Wechselburg had produced the first works of the transitional style, should also have been foremost in the Gothic sculpture of Germany. The earliest monuments of the latter class are the twelve statues, dating from about 1270, which Bishop Dietrich of Naumburg erected in the cathedral of that town in honor of the former benefactors of the church. These figures in life-like conception and expression far surpass those of Henry II. and Cunigunda, on the eastern portal of Bamberg, and mark the beginning of an entirely new phase of art, which has scarcely a trait in common with the older Saxon works before mentioned. There is no trace of the typical positions or of the traditional treatment of the garments. Each figure and head shows that it was imitated from an individual model, and the original and effective draperies are also direct studies from nature. Still, there is no absolute realism in these noble and ideal figures. Some defects are to be observed in the proportions, and if all the parts of the body except the heads and the hands had not been hidden by the drapery, the uncertainty in the study of nature, and the fact that the artist looked at life with sentiment rather than understanding, would have been more clearly manifest. These imperfections, however, do not preclude the impression that the traditional limitations still evident in the figures of Freiberg and Bamberg have here been outgrown, and that the chisel was guided by a new power of great promise. This deserves the higher praise, as these works in no wise imitate the courtly elegance of the French, but in conception and expression are thoroughly national. Creations of such excellence naturally resulted in the establishment of a school, the work of which is seen in the somewhat later statues of the emperor Otto I. and his wife, of St. John the Evangelist, and of St. Donatus in the choir of the Cathedral at Meissen.

In contrast to the independence of these Saxon productions, those of the Rhenish countries betray, in great measure, the influence of France. The sculptures of the portal of the south transept of the Strasburg Cathedral, dating from the middle of the thirteenth century, were executed by a woman, by the name of Sabina. With exception of the two symbolical figures of Church and Synagogue, and the tympanon relief of the Death of the Virgin (*Fig. 384*), all these works have disappeared; among them the statue which bore the inscription of the artist. Since the tradition that this Sabina



Fig. 384.—The Death of the Virgin. Tympanon Relief from the Cathedral of Strasburg.

was the daughter of Master Erwin von Steinbach has been proved false, the interest in her creations has diminished, especially as those which have been preserved, while very similar to the contemporary works of France, are in artistic respects far inferior to the sculptures of Rheims. The youthful types, the graceful slenderness of the figures, the flowing draperies, the sentimental inclination of the heads, with the sweetness of the faces, the somewhat affected pose of one of the hips, which from this time appears so universally in Gothic works,—all are here fully pronounced. The figures express

but little thought, even the noble elegance of the French models degenerating into affectation and coquetry.

Few traces of this debasement appear in the figures of the Minster of Freiburg, dating from about 1270; on the contrary, they are rendered attractive by a variety of graceful traits and flowing lines. In the sculptured decoration of the western façade of the Strasburg Cathedral, referable to the close of the thirteenth century, the elements of decline are clearly perceptible when the attention is turned from the imposing effect of the entire mass to a close observation of the details. The colossal figures of the Apostles on the piers of the choir of the Cathedral of Cologne, executed before the middle of the fourteenth century, are of somewhat greater artistic merit, being remarkable for the more vigorous character expressed in the attitudes, and for the careful and exact drawing of the nude parts. The fine draperies already betray the peculiarity of the German Gothic, in seeking to produce an effect by a superabundance of long and full garments, but as yet do not show those wrinkled puffs which were afterwards so prominent. The French character, however, is still evident, although pervaded with German sentiment. The direct influence of France is manifest, also, in the sculptures of the Collegiate Church at Wimpfen in Thal. (Compare page 550.)

The development of sculpture was essentially different in the ecclesiastical edifices of Middle Franconia, and especially of Nuremberg, which town, after the beginning of the fourteenth century, became a centre of mediæval art. The conceptions were here not derived from the life of the courts and of the Cavaliers, but rather from that of the burghers, which accorded better with the character of the free city. A simple beauty was thus attained, without the aristocratic traits so prominent in France and the cities of the Rhine. This is exemplified in the rich portal sculptures of the Church of St. Laurence, and even more clearly in the numerous statues of the Church of Our Lady, built between 1355 and 1361 (*Fig.* 385). The figures upon the fine portico of the latter are ascribed by tradition to one Sebald Schonhofer, who is otherwise unknown. To the same class belong also the sculptured decorations of the Schoener Brunnen. Owing to the frequent restorations, however, little remains of the original work, executed between 1385 and 1396 by

Heinrich der Balier. These excellent productions had a significant and far-reaching influence, which not only resulted in making Nuremberg and the surrounding places famous for their sculptures, but also prepared the way for the painting of this school. That the bourgeois character did not militate against coquettish elegance and sentimental grace is shown by the Wise and Foolish Virgins of the Bridal Door of St. Sebaldus, referable to the close of the fourteenth century.



Fig. 385.—Figure of a Prophet, from the Church of Our Lady, Nuremberg.

The exaggerated length of the bodies and the weak curves of the positions and draperies are quite as prominent in the Nuremberg sculptures as in those of the Rhenish countries and of France; hence it cannot be assumed that the attenuation was brought about merely through an imitation of the elegant forms of the upper classes, or that the bending postures, which contrasted so strikingly with the straight-lined parallelism of the preceding period, were the expression of courtly ideals alone. The cause is to be sought in the architectural surroundings rather than in living models. The slenderness of the figures was, in great measure, dependent upon the attenuated architectural framework; while the supple inclination of the bodies and the folds of the draperies were, in like manner, the reflex of the curved lines of the Gothic methods of construction. These characteristics may be considered as results of the same process of development which, in architecture, led to the flamboyant style. In both arts the same weak tendencies are recognizable,—the same degeneration of earnestness and dignity into frivolity and sentimental grace.

The carving of funeral monuments was an important branch of

stone sculpture, and, in Germany as in England, was of great individuality and independence. The monuments of Henry the Lion and his wife in the Cathedral of Brunswick, of the Landgrave Conrad in the Church of St. Elisabeth in Marburg, of Count Ulrich of Wurtemberg and his wife in the Collegiate Church of Stuttgart, all referable to the thirteenth century, are remarkable works; in artistic excellence, in quiet dignity and ideal rather than realistic conception, they fully equal the before-mentioned sculptures of the Cathedral of Naumburg. The treatment was, of course, entirely ideal in the monuments which, like those of the Merovingians, Carolingians, and Capets in St. Denis, were erected in honor of personages long deceased. To this class belong the tombs of Aurelia, daughter of Hugh Capet, of Queen Uta, wife of the Carolingian Arnulph (*Fig. 386*), and of Duke Henry of Bavaria, in St. Emmeram at Ratisbon. They are readily distinguishable from Romanic works by the youthfulness of their types, and the gentle sentiment expressed in their faces.

In the fourteenth century a more decided realism appears in this branch of art. Some attempt at portraiture is unmistakable even in the engraved (*sgraffito*) memorial tablets (*Fig. 387*). Such delineations, however, belong rather to the province of painting, and were chiefly employed in connection with works in metal. The life-like character is still more strongly marked in the monuments executed in high-relief, although it is not always of good effect, especially in those cases where the figure, conceived as sleeping or dead, is represented in lively action instead of with the hands folded, as customary. A contradiction of ideas naturally resulted in such instances, similar to that which has been



Fig. 386.—Funeral Monument of Queen Uta, in the Church of St. Emmeram, Ratisbon.

noticed in the English images of knights, with the head resting upon the death-pillow, while the legs are represented as in motion, or the hand as drawing the sword. It was not less incongruous when the reclining figure of a bishop was shown in the act of crowning kings,—as is to be observed upon the monument of the Archbishop Siegfried von Epstein (d. 1249), with the two kings

Henry Raspe and William of Holland, in the Cathedral of Mayence, as well as upon the more elaborate tomb of Archbishop Peter von Aspelt (d. 1320), with the three kings, Henry VII., Louis the Bavarian, and John of Bohemia. Moreover, the figures of the kings, with simpering faces, half-grown, and reaching only to the knees of the bishops, have a most childish and undignified appearance, while the gestures of the ecclesiastics are unnatural and wholly wanting in grace. Most of the funeral monuments, however, were free from such bombastic striving after effect. In those of priestly dignitaries, especially, the action was limited to the bearing of the attributes, the crozier, and the book (*Fig. 388*), or to the act of blessing with the uplifted right hand.



Fig. 387.—Engraved Brass from the Tomb of the Priest Gerard von Lynden (d. 1366) at Nossendorf, near Demmin.

The long liturgical garments, with their many folds, and the insignia of the bishops, were better adapted to representation than was the knightly armor of the time. From similar reasons the feminine figures were, as a rule, more successful. In these the noble, Madonna-like maidenliness characteristic of the thirteenth century, and particularly of the art of France, gave way, in the fourteenth, to

a more matronly and bourgeois conception. The preference for a superabundance of folds in the drapery, peculiar to the Germans, made itself more and more felt.

In Germany, as in France, the sculptures of the thirteenth and fourteenth centuries were chiefly of stone, taken from the same quarries which supplied the blocks for the architectural framework. The connection between architecture and sculpture was so intimate that a different material was but rarely employed for the latter; indeed, the decorative details, both of figures and of conventionalized patterns, were commonly executed by the same guild of artists. In those provinces where brick was almost exclusively in use, the lack of stone naturally led, in the few works of sculpture, to the adoption of clay as a substitute. Sculptures of this material are most frequent in North Germany. Of especial importance among them are the statues of the Golden Portal at Marienburg in Prussia, representing the Wise and the Foolish Virgins,—allegorical of the Church and the Synagogue. Attempts in clay, colored and glazed, were more rare, and seem to have been produced only in Saxony; some few examples are to be seen in the Museum of the Grosser Garten in Dresden, and in the Germanic Museum at Nuremberg.

Until the close of the fourteenth century carvings in wood re-



Fig. 388.—Monument of the Archbishop Conrad II. von Weinsberg (d. 1396), in the Cathedral of Mayence.

mained as subordinate in artistic respects as they had been during the Romanic epoch. Such works as the beautiful group of the Crucifixion at Wechselburg, which dates to the beginning of the transitional period, and, according to Bode, originally surmounted the roodloft, were not produced in this branch during the two subsequent centuries. Carvings in wood lost their all-important stylistic peculiarity by being covered with a thick priming of chalk, applied either directly upon the kernel, or upon strips of linen cloth glued over the wood, after which the whole was painted,—this treatment having been devised in order to make them resemble stone sculptures as closely as possible. Works of this kind are to be found in the Chapel of the Trausnitz, and upon the funeral monuments of Duke Louis of Kelheim (d. 1231), and his wife Ludmilla of Bogen (d. 1240), in the Convent of Seligenthal at Landshut in Bavaria; also upon that of Duke Henry II. of Sayn, in the Convent Church of Sayn, and upon that of Count Ludolf in the Collegiate Church near Gandersheim. All of these, together with various crucifixes and Madonnas, are of the transitional style. Towards the close of the fourteenth century sculptures in wood became more frequent in the details of roodlofts and altars. Although the Romanic traditions had been given up in favor of Gothic forms, the dependence upon stone models in conventional respects is still evident, and there is manifest a desire to make the material resemble stone as closely as possible.

In the metal-work of this age, as compared with that of the Romanic epoch, there was a marked decline. The casting in bronze of small objects with simple ornamentation continued to be practised, especially by the guild of the "Apengeter," who worked in brass alloy, and by that of the "Grapengeter," or actual bronze founders. The larger productions, such as candlesticks and baptismal fonts, were decidedly inferior to the corresponding Romanic works, as is proved by the baptismal font in the Cathedral of Wurzburg, executed in 1279 by Master Eckart, of Worms, and that in the Cathedral of Rostock, dating from 1290. In general, the Romanic types were closely followed in this industry, the more as the architectural style of the Gothic was not well adapted to such utensils. An absolute progress is to be observed only in the casting of bells, which

were of greater size and more artistically decorated, the improvement being first manifest in the bell of the Church of St. Burchard at Wurzburg, cast in 1249. It is said, however, that the bell "Cantabona," of the Cathedral of Hildesheim, cast in the eleventh century, and cracked in 1590, weighed five tons,—a weight which was not exceeded until the fifteenth century.

In figure subjects the casting of such doors as those of the Romanic cathedrals was entirely discontinued in the Gothic epoch. Bronze funeral monuments in relief were rare in the thirteenth and fourteenth centuries, the finest being that of the Archbishop Conrad von Hochstaden (d. 1261) in the Cathedral of Cologne, and that of Bishop Henry Bockholt (d. 1341) in the Cathedral of Lubeck. Only one statue is to be mentioned as belonging to this period, the equestrian monument of St. George, under life size, in the court of the Palace of Prague, cast in 1373 by Martin and George von Clusenbach. All these productions are destitute of the peculiar characteristics of metal-work, clearly betraying their dependence upon stone sculpture. A greater conformity of the style to the material appears in the numerous engraved brasses, which seem to have been chiefly executed in Cologne and Lubeck. The oldest of the kind is the memorial tablet of Bishop Yso (d. 1231) in the Church of St. Andrews at Verden. Good examples have been preserved in Lubeck and in other towns of the North German Lowlands, especially Schwerin, Stralsund, and Thorn; also in Breslau, Paderborn, and in the vicinity of Cologne. Plates of metal inserted in stone, such as those common in England, are more rare.

Work in the precious metals, notably throughout the provinces of the Lower Rhine, long adhered to Romanic traditions. It was not until towards the close of the fourteenth century that small objects began to bear a peculiarly Gothic stamp,—the decorative figures showing the slender and elegant proportions developed in stone sculpture, and the ornamentation being derived from the details of Gothic architecture. A tendency to employ architectural forms in ecclesiastical utensils is especially evident in the monstrances, which came into general use after the institution of the festival of Corpus Christi in 1316. The chalices, censers, clasps, croziers, etc., clearly display this influence, as do also the ivory carvings, the significance

of which, however, had become much decreased by their exclusive employment for secular purposes.

At the beginning of the fifteenth century German sculpture, notwithstanding the greater production and the consequent increase in practice and ability, showed no decided improvement. On the one hand there was a mechanical mannerism, and on the other a desire to produce an effect through exaggeration and a certain theatrical pathos. What in the fourteenth century had been an expression of sentiment now became a grimace; what had been animation and grace degenerated into affectation. The spiritual tenderness and delicacy of the Rhenish countries declined into effeminacy; the bourgeois element of Franconia and Saxony into hardness and coarseness. The increasing realism was in some ways a disadvantage, especially in those districts where the race was ill-favored, and where, consequently, it was not of good effect so to represent individual peculiarities that, in striving after a striking characterization, the figures were well-nigh caricatured, instead of being ennobled and idealized.

During the thirteenth and fourteenth centuries artistic activity was almost entirely restricted to sculpture in stone, and the style thus developed naturally continued to display its dependence upon architecture; in the fifteenth, on the other hand, wood-carving became predominant, and determined the tendencies and style of the art of that age. Sculptured decoration was applied less to the portals than to altars, choir-stools, and other furnishings of the interior. For such purposes stone was unsuitable, not being susceptible of the requisite lightness and delicacy, or of the polychromatic treatment necessary to harmonize with the colored illumination. Works in stone were also incapable of that intimate connection with the paintings which the taste of the period demanded.

The change of material necessarily influenced the style, although, for a time, the artistic ideals remained the same in works of wood as in those of stone. This change is particularly evident in the architectural parts of the altars and choir-stools, which, though at first imitating stone models, soon lost the technical peculiarities characteristic of those productions. Thus there was attained a slenderness and transparency similar to fretwork, which could never have re-

sulted from the practice of stone-cutting, but which accorded well with the principles of joinery; the graceful effect produced was not unlike that of the painted architecture of Pompeian wall decorations. With long experience in wood-work of this kind the figures acquired those qualities always connected with carving and extensive painting and gilding. The first of these characteristics was an increased sharpness of the lines, by which alone, under the altered conditions of color, the desired effect could be produced. The second was the different treatment of the draperies, with wrinkles rather than with folds,—adapted as entirely to the fibrous material and the use of the carver's knife as the long and straight folds were to stone and the work of the statuary's chisel. The projecting puffs were more favorable to a brilliant display of color, and especially of gilding, than smooth surfaces and simple curves could ever have been.

The chief purpose of the paintings, connected with the sculptures upon the altars, was to give a certain effect of perspective, the stone sculptures having usually been treated in true relief. Thus, in order to produce the impression of foreground, middle, and background, the figures in front were made in the full round, those in the centre in high-relief, while the background, inclusive of the landscape, was executed in low-relief. The reaction of polychromatic carvings upon painting was, on the whole, far greater than the influence of painting upon sculpture. The Franconian school, especially, owes to wood-carving its wrinkled folds and sharp lines; these could have been developed neither by mural painting, by that of miniatures, nor, least of all, by painting upon glass. Although the artists endeavored to give a harmonious unity to the painted and carved portions of the altars, it was not by imitating the painted panels; on the contrary, these latter rather show the desire to attain an effect similar to that of the polychromatic reliefs. The greatest importance was attached to the sculptured central part of the triptychs, and even the more elaborate inner sides of the wings were often executed in relief. Sculpture in stone itself was at last so decidedly influenced by that in wood that, towards the close of the fourteenth century, not only reliefs but even statues of stone exhibited all the characteristics of wood-carving, seeming to be exact

copies of carved models, in the same way as, a hundred years before, stone sculptures had been imitated in wood.

Although during the fifteenth century painters and wood-carvers belonged to the same guild, and frequently occupied a common workshop, it is not to be assumed that, as a rule, both arts were practised by the same person. Judging from the style, it seems probable that only a small part of the paintings of the altar of Schwabach, which is known to have been executed in the school of Wolgemut, were by the hand of that master himself. The architectural, sculptural, and painted details of such altar-pieces were commonly intrusted to different members of one school, while only the name of the chief master has been preserved in the records. The duties of this superintendent included the general direction and responsibility, and sometimes the greater part of the execution. This was the case with the altar of Tiefenbronn, near Calw, dating from 1431; with the chief altar of the same place, completed in 1469; and with the high altar of the Church of St. James at Rothenburg on the Tauber, A. D. 1466,—the paintings of which are ascribed respectively to Lucas Moser of Weil, Hans Schuechlin of Ulm, and Friedrich Herlen of Noerdlingen. Although these three are alone named as the masters, this certainly cannot be taken to prove that all the sculptural and architectural details were executed by their hands. Some few works not signed are of even greater excellence, as, for instance, the carved and unpainted altar in the last-named church, dating from 1478, and representing the Last Supper; the altar of the Virgin in the Hospital Church at Rothenburg; the altar of the Virgin at Kreglingen, and others.

After the beginning of the fifteenth century Ulm seems to have been the centre of the Suabian school of wood-carving. From it proceeded one of the most distinguished masters of his period, Joerg Syrlin the Elder, who, from an inscription on a singing-desk now preserved in the Museum of Antiques of that town, is known to have worked as early as 1458. His chief production, the choir stall in the Minster of Ulm, executed between 1469 and 1474, is one of the finest of the Middle Ages, both in respect to its architectural and its sculptural carvings. It may even be said that its classic sages, the sibyls, prophets, and pious women of the Old Tes-

tament, the apostles and saints, represented for the greater part in breast-pieces, have a delicacy of expression which, up to that period, had never been attained in Christian art. Joerg Syrlin the younger was inferior to his father, but numerous wood-carvings in and near Ulm,—for instance, those of Blaubeuren, Urach, Herrenberg, Gmuend, etc.,—show that through him and his companions the school of Ulm maintained its importance until late in the sixteenth century. The influence of the Suabian school of wood-carving extended to the west as far as Colmar and Strasburg, to the south, by way of Ravensburg and Constance, to Chur, in the Grisons. Through Augsburg a branch of it seems to have been introduced into Bavaria,—instance the Madonna of Blutenburg (*Fig. 389*),—perhaps also into the Austrian provinces. Judging by the altar of Gries near Botzen, dating from 1471, and that of St. Wolfgang in Upper Austria, executed in 1481, Michael Pacher, of Bruneck, seems to have been influenced by the schools of Franconia and Upper Italy as well as by that of Suabia.

The works of the southern districts of Suabia have flowing draperies; those of the northern, on the other hand, show traces of the wrinkled and angular style prevalent in Franconia. Nuremberg was even more exclusively the centre of the Franconian school than Ulm had been of that of Suabia. The carvings of Nuremberg cannot be traced farther back than the middle of the fifteenth century, at least no names of artists are preserved of a period earlier than this. All the best masters seem to have belonged to the school of Wolgemut, which, after 1434, exercised an almost exclusive influence upon the artistic activity of Nuremberg. Wolgemut's monopoly



Fig. 389.—Madonna from Blutenburg, now in the National Museum of Munich.

in this branch may have affected the fortunes of Veit Stoss, the most celebrated carver of figures in Nuremberg, who, giving up his citizenship in 1477, removed to Cracow, in which place he is said to have been born. The character of his art is entirely that of Nuremberg. During his stay of almost twenty years in Cracow he executed, among other works, the chief altar-piece of the Church of Our Lady at that place, the Polish capital becoming through him an outpost of Franconian art. In 1496 he returned to Nuremberg, where he continued exceedingly productive up to a very advanced age, meeting with much ill-will, not altogether undeserved. Most of his works show that he could not entirely free himself from the wrinkled puffs in the draperies, nor, in the male figures, from the crude hardness characteristic of the school. Still, he far surpassed all his contemporaries in expressing a certain delicacy of sentiment, which was in strange contrast to the tendencies of Wolgemut, and even to the character of the artist himself, who caused much trouble to the magistrates of his town. His most important work in Nuremberg, the Annunciation to the Virgin in the Church of St. Laurence, especially in the round central figures, far exceeds even the best creations of Wolgemut. In outline, grouping, gesture, the forms of the nude parts, and the soft and smooth flow of the draperies, this group has great beauty and charm, proving the artist fully equal to Holbein the younger, Dürer, and Peter Vischer, so that, strictly speaking, he can scarcely be considered to belong to the Middle Ages. It is true that this carving, dedicated in 1518, is referable to the later years of his life, and is the first of his productions which can be classed with the works of the Renaissance.

The Germanic Museum, the churches of Our Lady, St. Laurence, St. John, St. Ægidius, and St. James at Nuremberg, and many places in the vicinity, contain a great number of works of the Franconian school of carving, the influence of which extended, moreover, far beyond its native districts. In Cracow the methods of Veit Stoss continued to be practised, in the sixteenth century, by his pupil, Joerg Huber; and at Schleswig, in the extreme north, Franconian characteristics can be traced in the carved altar of the cathedral, executed between 1515 and 1521 by H. Brueggemann. This style was not so common in North Germany as in Saxony and

Silesia, since it could not compete with that of the Dutch and Flemish schools of painting. In the Rhenish countries, also, there was no such activity in wood-carving as in Franconia, probably in consequence of the growing preference for painting, which produced such eminent results in the districts of Cologne and the Netherlands. The best carvings preserved in the towns of the Lower Rhine, such as those in the Minster of Xanten and those in the Collegiate Church at Calcar, are as late as the period of the Renaissance. In Westphalia the carvings of the fifteenth century follow the traditions of the ideal sculpture of the fourteenth. Throughout the northern part of Germany there was no artist equal in importance to Syrlin or Stoss, to whom even Brueggemann was vastly inferior.

It has already been remarked that in general the style of the wood-carving of the fifteenth century exercised an influence upon the stone sculpture of the period. This is less manifest in Suabia and the districts dependent upon it, where a true feeling for style always adapted the treatment to the nature of the material. The Rhenish countries, where stone sculpture similar in character to that of France still prevailed, had a considerable influence upon the Suabian school, as had also the Netherlands. That of the latter country seems not to have been limited to painting, for we find a Dutch sculptor, Nicolas Lerch, of Leyden, employed in Suabia. Even so eminent a master as Syrlin clearly betrays the style of wood-carving in his stone sculptures, as is shown by the Fisher's Fountain at Ulm, dating from 1482. The same characteristics are also recognizable in the treatment of the architectural details of tabernacles for the Host, such as that at Ulm; in the pulpits of Tuebingen, Stuttgart, Strasburg, and in the baptismal fonts at Ulm, Urach, and Reutlingen. On the other hand, there is scarcely a trace of the methods of wood-carving in the magnificent monument of Emperor Louis the Bavarian in the Church of Our Lady at Munich (*Fig. 390*), executed at about the same time by Master Hans der Steinmeissel, the draperies being rather in the style of the Netherlands. The same may be said of several stone sculptures of this period at Ratisbon.

The influence of wood-carving upon stone sculpture is unmistak-

able in Franconia, especially in Nuremberg, the school of which, in this latter branch, surpassed all others of Germany. The name of Adam Kraft, a contemporary of Veit Stoss, and but a few years younger, first appears, in 1490, upon the Schreyer Monument of the Church of St. Sebaldus. Kraft's style clearly betrays the influence



Fig. 390.—Part of the Monument of Emperor Louis the Bavarian in the Church of Our Lady, Munich.

of Stoss, and indeed that of wood-carving in general. In his magnificent tabernacles—the so-called sacrament houses—he so thoroughly transferred to stone the forms of the Gothic carved altars that, from a drawing, it would not be thought possible they could be of any other material than wood. Even in the figures, those in the full round as well as those in relief, the style of wood-carving

is combined with the realism of painting. As the conceptions of Stoss have something of a lyric character, so those of Kraft have a dramatic element, which has caused him, not inaptly, to be called the Rogier van der Weyden of sculpture.

Of this period there exist nearly as many Franconian sculptures in stone as in wood, but to the majority of these, including many of great excellence, no names of artists are attached. Among the sculptors of the school of Nuremberg is to be mentioned Tilman Riemenschneider, from Osterode in Anhalt, who, after 1494, settled in Wurzburg. Although in his works there are traits slightly resembling Mantegna, he cannot, taken all in all, be ranked with Adam Kraft. Like the latter, he retained the Gothic principles of design late in the sixteenth century. The funeral monument of Henry II. and the Empress Cunigunda in the Cathedral of Bamberg, executed between 1499 and 1513, distinctly shows, in the architectural details and the sentimental attitudes of the two chief figures, the character of the late Gothic with a pompous display almost *baroque*.

The magnificent monument of Emperor Frederick III., in the Collegiate Church of the Neustadt, Vienna, was executed by an artist called from the Netherlands, the before-mentioned Nicolas Lerch of Leyden, whose work was completed in 1513 by Master Michael Dichter, probably one of his pupils. The influence of the Netherlands, apparent even in the monument of the Emperor Louis the Bavarian in Munich, is here natural, but the overloaded performance in question has by no means the artistic importance of Sluter's celebrated work at Dijon. In general, the Austrian stone sculpture of this period is influenced rather by the style of Suabia than by that of Franconia.

While carving in wood and sculpture in stone were practised with exceptional success in Franconia, casting in bronze, as an art, was restricted to the one foundry of Vischer in Nuremberg. The importance of the Saxon and North German establishments continued to decrease during this century. Even those of Lubeck, whose works had previously been exported, formed no exception, as is proved by the rudeness of three baptismal fonts in that city—that in the Church of St. Ægidius, executed by Hinrik Gherwiges in

1454; that in the Cathedral, by Laurens Groven, in 1455; and that in the Church of St. James, dating from 1466, the designer of which is unknown. The bronze tabernacle in the Church of the Virgin at Lubeck, cast in 1479 by Nicolas Rughesee and Nicolas Gruden, is richly ornamented with architectural details, but the figures are weak and careless in execution. The renown of the bronze foundry of Nuremberg soon surpassed that of all others, although the font cast by Hermann Vischer, in 1457, for the City Church of Wittenberg (*Fig. 391*), by no means indicates how great was to be the



Fig. 391.—Baptismal Font in the City Church of Wittenberg, by Hermann Vischer.

future of his school. This work, in the fantastical details of its architecture, distinctly exhibits the characteristics of the carved altars of Nuremberg, in the same way as do the stone tabernacles of Kraft, to which, however, as well as to those of Stoss, the Wittenberg font is greatly inferior. The same may be said of the numerous bronze tombs of Bamberg, the oldest of which dates from 1414. For the greater part these seem to have been executed in the foundry of Nuremberg. Neither the plates executed in sgraffito, nor those in low-relief,

such as the tombs of the bishops George I. (d. 1475) and Henry III. (d. 1489), are of noteworthy artistic excellence. The bronze founder appears to have been not unfrequently furnished with a design, sometimes even with a model.

The renowned Peter Vischer, son of Hermann Vischer, was called, as early as 1494, to the service of the electoral court at Heidelberg. The style of his works at the time, though far superior to that of his father, was still decidedly Gothic, as is seen in the funeral monument of Bishop John in the Cathedral of Breslau,

and in that of Archbishop Ernst in the Cathedral of Magdeburg (*Fig. 392*). His fine feeling for conventional treatment preserved him from the undue influence of stone sculpture or of wood-carving, even in these earlier works, which in technical respects and independence of design are masterpieces. The heads especially have great character and individuality, and are in no wise inferior to the best works of his contemporaries. Notwithstanding the fact that these productions were far more elegant than the works of Kraft and Wolgemut, and fully equal in artistic significance to those of Stoss, they were still distinctly Gothic, not only in architectural details but in ideal conception and modes of expression.

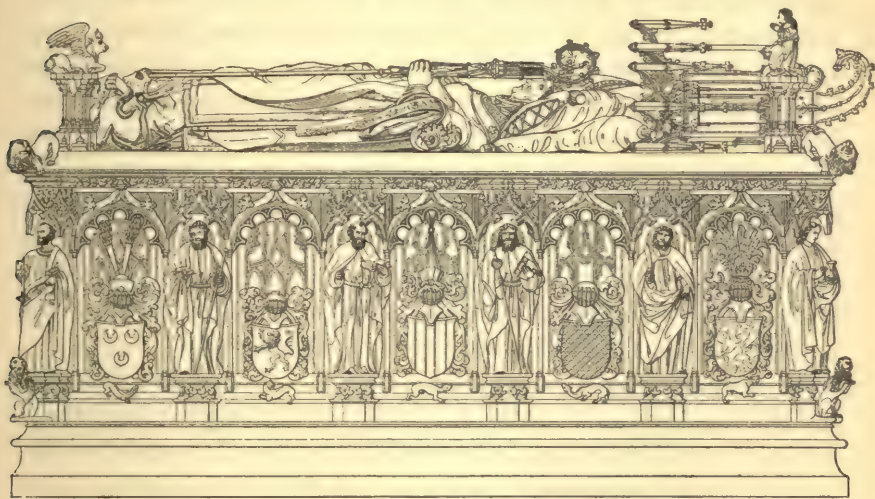


Fig. 392.—Tomb of Archbishop Ernst in the Cathedral of Magdeburg, by Peter Vischer.

Peter Vischer's celebrated shrine of St. Sebaldus, even more than the Annunciation by Veit Stoss, may be considered as marking a decided advance towards the Renaissance. The architectural framework of the monument is essentially Gothic, but the introduction of certain Renaissance details has given to the whole a mixed character. The sculptures, however, are conceived entirely in the new style. The figures of the Apostles still have some Gothic reminiscences, but these seem to have been derived rather from paintings of the school of Cologne than from the works of Veit Stoss and

Adam Kraft. In the representations in relief of the life of St. Sebaldus, mediæval traditions are given up, and the master appears altogether as an artist of the Renaissance. This change was in him even more direct and immediate than in his great contemporary, Albert Dürer. It exercised an influence upon his entire school, the works of which were distributed throughout Germany, from Aschaffenburg to Poland, and from Innsbruck to Berlin, — thus greatly furthering the advance of the new style.

ITALY.

At the close of the Romanic epoch those works which were executed by order of Emperor Frederick II. (compare page 469) took a position in the art of Italy * corresponding to that of the sculptures of Freiberg and Wechselburg in Germany. The conscious return to the antique models, evident in them, is surprising at a time when the sculpture of Italy had either sunk into barbarism, or had become more or less dependent upon Byzantium. Notwithstanding the fact that they were but isolated instances of this tendency, they still could not fail to attract notice and incite imitation. Even though the statues were not widely known, Frederick's gold coins were current throughout Italy, and aided in directing the attention of artists to the antique models hitherto so neglected.

It cannot be ascertained whether Niccolo Pisano, to whom the revival of sculpture is chiefly due, received any impulse from these works of Southern Italy. It is possible that the inclination to imitate the classic sculptures which were scattered throughout Italy may have made itself felt at the same time in various parts of the country, indications of this tendency appearing as early as 1200 in several works of Verona and Siena (compare page 467). At all events, it is quite certain that in Tuscany the systematic change of style was effected by Niccolo Pisano. His appearance was contemporary with the first employment of Gothic architecture in Italy.

* Ch. C. Perkins, *Tuscan Sculptors, their lives, works, and times*. London, 1864. — The Same, *Italian Sculptors, being a History of Sculpture in Northern, Southern, and Eastern Italy*. London, 1868. — H. Semper, *Uebersicht der Geschichte toskanischer Sculptur*. Zürich, 1869, und *Zeitschrift f. bild. Kunst*. VI., 1871. — J. Burkhart, *Der Cicerone*, part ii., vol. ii. Fifth edition. Edited by W. Bode. Leipzig, 1884.

But the introduction through him of classic elements, so foreign to the Gothic of France and Germany, naturally gave a peculiar character to the Gothic sculpture of Italy. If the tympanon relief of the Cathedral of Lucca, dating from 1233, be indeed referable to Niccolo, it shows that the master in his youth followed methods not altogether different from those of the North. In the Descent from the Cross, which is represented in this sculpture, there is no lack of expression of sentiment or liveliness of action,—the chief characteristics of Gothic art in general. In his greatest works, however, these traits disappear, and are superseded by a close imitation of antique models, the sculptor naturally being less Gothic as he became more classic. It is probable that, as Vasari says, Niccolo was inspired by the reliefs of the sarcophagi which the Pisans had collected as trophies of their victories. It is worthy of note that, when the antique models did not answer, the figures substituted were in the Romanic rather than the Gothic style, the whole being more similar to the sculptures of Freiberg than to the contemporary works of the French Gothic.

The classic style of Niccolo attained its full perfection in the pulpit of the Baptistery of Pisa, referable to the year 1260, this being the first of that series of magnificent works which were to make the sculpture of Italy the finest of the world. The architecture of this pulpit,—an ambo of hexagonal plan supported upon columns,—is chiefly of the Gothic style. The lions upon which the shafts are placed display, it is true, Romanic reminiscences; but the forms of the capitals and the trefoil cusps of the arches are distinctly Gothic. The parapet, occupying five of the six sides, is formed by panels sculptured in relief, representing the Nativity (*Fig. 393*), the Adoration of the Magi, the Presentation in the Temple, the Crucifixion, and the Last Judgment. The figures are short and thick-set; the composition crowded, like that of the reliefs of Roman sarcophagi; and there is but little action. The influence of antique models is perceptible in various degrees, most directly in the queenly figure of the Madonna of the Nativity, in the Joseph of the Presentation, who closely resembles the antique type of the bearded Dionysos, and in the horses of the Magi. The draperies are almost purely antique, so that it is even possible to identify one of the models

chosen by the artist, namely the so-called Sarcophagus of Phædra in the Campo Santo at Pisa. The attitudes and the proportions of the figures are still awkward; but classic conceptions and methods are here already revived, and we perceive the first efforts of the Renaissance.

The work of Niccolo was, however, rather a rehabilitation than a re-birth of the antique. It is not to be denied that the sculptures of the Portal of Freiberg or those of many Gothic cathedrals of



Fig. 393.—Relief upon the Pulpit of Niccolo Pisano, in the Baptistery of Pisa.

France were of greater artistic importance, inasmuch as they were decidedly more independent. Still, this is not the only reason why the beginning of the Renaissance in sculpture may not be dated from this work. The activity in this branch, initiated by the elder Pisano, has as little real claim, in such a regard, as is to be accorded to the work of the Saxon and French masters before referred to; moreover, the return to the antique, which is the chief characteristic of Niccolo, did not outlast his lifetime, and was followed by es-

entially Gothic conceptions. The master must, therefore, rather be considered as an early forerunner of the Renaissance.

The academic and classic training of Niccolo was of great advantage in the technical development of his son, Giovanni Pisano, whose talent was in many ways superior to that of his father. Giovanni, however, together with the greater number of his fellow-students, pursued an entirely different course, more comparable to that of the Northern masters, and more Gothic. Through what means he received this impulse does not appear, and little is gained by the supposition that older pupils of his father, notably the great Arnolfo di Cambio, had previously taken up Northern methods. When Vasari speaks of the co-operation of German masters he must refer to later works of the school of Giovanni, and to the sculptures of the Cathedral of Orvieto; in the records of the Cathedral of Siena, also, the name of the German artist Ramus does not appear until 1281. If foreign influences are assumed they can only have been derived from France and the Upper Rhine, although the French style was in many ways surpassed by that of Giovanni.

In the pulpit of octagonal plan in the Cathedral of Siena, executed under the direction of Niccolo between 1266 and 1268, the new tendencies made their appearance, whether due to Arnolfo or to Giovanni. Side by side with the classic elements of Niccolo there is a dramatic action, and an expression of sentiment of which there is scarcely a trace in the pulpit of the Baptistery at Pisa. Giovanni's style is still more manifest in the fountain at Perugia, referable to the years between 1277 and 1280, in which the aged Niccolo, who had received the order, probably took but little part. In the works executed after the death of Niccolo, under the superintendence of Giovanni, there is no immediate influence of the antique, a naive realism appearing in its place. This is particularly noticeable in the sculptures of the façade of the Cathedral of Orvieto. Although these reliefs compare to the Gothic works of Rheims and Amiens as do the sculptures of Niccolo to those of Freiberg and Wechselburg, they are far less ecclesiastical and more realistic in character than are those of the North. This applies especially to the representations of Adam and Eve and the Last Judgment. The more thorough study of nature, the greater elegance of form

and the finer feeling for beauty apparent in them, render any considerable influence from France or Germany improbable. These works have also the lively and pathetic action, the flowing lines, both of the nude parts and the draperies, and the gentle, almost sentimental expression characteristic of Gothic art in general; but the classic training received by Giovanni and his fellow-students, tending towards a close and objective observation of nature, had protected them from the subjectivity of Northern art. Besides this



Fig. 394.—Relief upon the Pulpit of Giovanni Pisano in S. Andrea of Pistoja.

training, the better material provided by the Italian marble may have contributed to a greater refinement and thoroughness of execution.

The relations of the art of Giovanni to that of Niccolo may be best exemplified by comparing two representations of the same subject (*Figs. 393 and 394*). The pulpit in S. Andrea at Pistoja, attested by an inscription to be the work of Giovanni, was completed in

1301. The composition of the Nativity is much the same as those of the pulpits of the Baptistery of Pisa and the Cathedral of Siena. But the Classic-Romanic character of the representation in the Baptistery of Pisa, which had been somewhat modified in several of the figures at Siena, has in Pistoja been wholly exchanged for the graceful and gentle forms of the Gothic. The attitudes are life-like, the epic repose of the older work being here given up for an action almost dramatic,—the rigid dignity and stately composure, for pathetic sentiment. A similar composition is the Nativity upon the pulpit of the Cathedral of Pisa, completed in 1311, now only preserved in part.

The contrast to Northern Gothic sculpture apparent in the reliefs is even more marked in the statues. The Madonnas of Giovanni have little of the delicate grace and maidenly loveliness of the Virgins and Saints in Rheims and Strasburg, and, moreover, no typically ecclesiastical character. The Madonna of the south portal of the Cathedral of Florence is a queenly personage, who could never have developed into a Mater Dolorosa; the Madonna della Cintola in the Cathedral of Prato has almost an expression of defiance in the abrupt turn of the head, in the attitude of the body, as well as in the admirable drapery (*Fig. 395*). How readily this bold vigor could in secular subjects be exaggerated into ugliness is shown by the allegorical figure representing the city of Pisa in the Campo Santo of that place. In works of this kind the artist often sacrificed beauty to a



Fig. 395.—Madonna della Cintola, by Giovanni Pisano, in the Cathedral of Prato.

striving after truth to nature and characteristic individuality. This may be observed in several funeral monuments. That of Pope Benedict (d. 1304) in S. Domenico at Perugia is of noble conception, but that of Enrico Scrovegno (d. 1321) in S. Maria dell' Arena in Padua is almost disagreeably realistic.

It is not surprising that the fellow-students and companions of Giovanni should have followed his Gothic tendencies rather than the classic methods of their master Niccolo. Even painters could not resist this powerful impulse, as is shown by Giotto, who is to be considered as a pupil of Giovanni Pisano rather than of Cimabue. The style of Niccolo was most closely adhered to by Fra Guglielmo d'Agnello, who assisted him in the execution of the Arca of St. Dominic in the Church of S. Domenico at Bologna. The co-operation of this artist in the façades of S. Michele at Pisa and the Cathedral of Orvieto is certain, and the somewhat uncertain forms of the pulpit of S. Giovanni fuor' Civitas at Pistoja renders it probable that this was his own independent work. Arnolfo di Cambio, who has before been mentioned as one of the most influential architects of the Italian Gothic, is far more important, and may in many ways be considered as a forerunner of Giovanni Pisano, who was his junior by more than twenty years. In the work upon the pulpit of Siena he had been the chief assistant of Niccolo, and received twice as much wages as Giovanni. Although his tendencies were mainly Gothic, his sculptures on the Bigallo of Florence have all the classicism of Niccolo.

Arnolfo carried the Tuscan style to Rome, where he was engaged upon the tabernacle in the Church of S. Paolo fuori le Mura, and where an artist in Cosmatic work, Giovanni, who may have assisted Arnolfo in this task, designed, towards the close of the thirteenth century, several fine funeral monuments of bishops for the churches of S. Maria sopra Minerva and S. Maria Maggiore. The Pisan influence was extended to Naples by another follower of Niccolo, Tino di Camaino of Siena, who found an excellent pupil and assistant in the Neapolitan Gallardus. In Southern Italy the field had already been prepared for the new style by the sculptures of the time of Frederick II., and in Naples, Ravello, Altamura, and Gaeta works of this character are preserved which antedate the ad-

vent of Tino. Particular importance is to be attached to the pulpit in the Cathedral of Ravello, dating from 1272; Niccolo di Bartolommeo of Foggia, by whom it was executed, seems to have been connected with the school of Capua, rather than with that of Pisa.

The pupils of Niccolo Pisano preserved more or less of his classic methods, but the case was otherwise with the followers of Giovanni. Among these, mention need here only be made of Agostino and Angelo of Siena, who were employed upon the sculptures of the façade of Orvieto, and whose independent work is the elaborate funeral monument of the Bishop Guido Tarlati in the Cathedral of Arezzo. Andrea Pisano, A. D. 1270 to 1350, deserves particular notice as another master of this important and influential family, of which he represents the third generation. The character of his style was determined by the reaction of the newly awakened art of painting, and especially by the influence of the universal genius of Giotto, upon the sculptural methods of Giovanni. Unfortunately it cannot be ascertained in how far Giotto furnished the designs for the sculptures of his Campanile, although the Creation of Adam and the Birth of Eve are directly referred to him by the Vita Anonyma of Ghiberti. Still, it may be assumed that the direct influence of Giotto went beyond the providing of painted models; several of the representations,—for instance, the agricultural group (*Fig. 396*) upon the Campanile at Florence, so spirited in composition and so slight in execution,—cannot possibly be attributed to Andrea Pisano alone. At all events, the impulse derived by painting from the sculptures of Giovanni Pisano now reacted, in its turn, upon the methods of Andrea, which were far more classic than the painting of Giotto.

The sons of Andrea, Nino and Tommaso Pisano, followed in the footsteps of their father; it is only to be observed that the highly-gifted Nino, who has some traits in common with Fiesole, deserves more attention than is generally accorded to him. Greater renown was attained by Andrea Cione (Orcagna), a versatile artist, who among the later and weaker representatives of the Pisan school of sculpture holds a place similar to that which he attained as a painter among the pupils of Giotto, and, as an architect, among the followers of Arnolfo. The sculptures of his altar-piece in the Church of

Orsanmichele at Florence, dating from 1359, are remarkable for their careful execution and somewhat severe style.

The influence of the school of Giovanni extended to Upper Italy. In Milan the Tuscan elements had naturally to compete with those of Germany and of the Comacini, and were most prominent in cases where the work was directed by artists from Pisa,—for instance, Giovanni di Balduccio, who designed the monument of Peter Martyr in a side chapel of S. Eustorgio at Milan, A. D.



Fig. 396.—Agriculture. Relief upon the Campanile of Florence.

1339,—or where types distinctly Pisan were introduced at least indirectly, as in the beautiful Arca of St. Augustine in the Cathedral of Pavia, which is said to have been executed in 1362 by Bonino di Campiglione, a pupil of Balduccio. The monument of Can della Scala (d. 1375), in Verona, is referable to the latter artist. Lanfrani, another pupil of Giovanni Pisano, worked in Imola and Bologna, in which latter town Andrea da Fiesole was employed early in the fifteenth century. Venice was likewise affected by influences from

Tuscany, although those of Germany still predominate in the fine figures of the rood loft in S. Marco. In Southern Italy traces remain of the old classic school of Frederick II.; these appear even as late as the funeral monuments of the Anjou family in the Church of S. Chiara at Naples, and are especially marked in the tomb of King Charles, who was murdered in 1347. Together with the French tendencies cultivated by the architects who had been called to Naples by the Anjous, there are, in some details, indications of a further development of the Tuscan style introduced by Tino of Siena.

Bronze casting appears to have been at first executed by workmen of merely technical training, who transferred to metal designs which had been conceived by sculptors solely with reference to works of stone. This seems to have been the case with the bronze parts of the Fountain of Perugia, cast by Magister Rubeus. Andrea Pisano, whose sculptures in marble have already been referred to, was the first to give an independent importance to artistic bronze casting by devoting due attention to its stylistic requirements. In his excellent models for the doors of the southern portal of the Baptistery in Florence, cast by the Venetian Leonardo di Avanzo, he again adopted an ornamentation of figures in relief, and appropriately modified the stone style which had hitherto prevailed. In attempting this he was naturally led to the study of antique bronzes, which may have been more numerous in Tuscany than classic sculptures in marble, at that time rare, especially in Florence. The inventive genius of Giotto probably had great influence in this direction, as is evident from the fact that many of the figures were directly copied from his painted compositions. Classic reminiscences are in these bronzes combined with the lively action and expression, and the graceful lines, often sharply emphasized, peculiar to the Gothic style,—all these features being blended into a harmony not elsewhere attained.

Work in precious metals was practised to a greater extent, and had by this time entirely freed itself from the Byzantine traditions which had been maintained for nearly a thousand years. The characteristic tendencies of the Pisan school are evident in the figures of silver-gilt upon the altar of St. John in the Opera del Duomo

at Florence, begun by Cione, father of Orcagna, and completed in 1477; and also in the elaborate altar-piece in the chapel of St. James in the Cathedral of Pistoja, executed between 1287 and 1398 by Andrea di Jacopo d'Ognabene, Giglio Pisano, Piero Florentino, and Lionardo di Ser Giovanni. It is plainly seen in both of these works that the intrinsic value of the material diminished rather than increased the artistic importance.

In regard to sculpture, the Gothic period was less distinctly separated from the Renaissance in Italy than in Germany. Elements of the art of the Renaissance had existed from the time of the Pisani, while, on the other hand, many a mediæval trait was preserved even as late as the Quattrocento. The names of artists are generally attached to important works which have a greater or less degree of original merit. Still, the common training, the national school and style, are more manifest among the pupils and followers of Andrea Pisano than in the Quattrocento of Florence, where the individual genius of Ghiberti, Donatello, and Luca della Robbia broke through all limitations, even as in ancient Greece the phenomenal appearance of Alkamenes, Pythagoras of Rhegion, and Myron had made an end of the hieratic and archaic local schools existing before them. The individuality, the purely personal position of the artist, was finally established by these three Florentine masters, the Renaissance thus beginning in Italy earlier than elsewhere in Europe.

Spain is the only remaining country of Europe which had any Gothic sculpture deserving of consideration. The Iberian peninsula was in this branch, as in architecture, dependent upon France, and especially upon the south-western provinces. The portal sculptures of Spain at first differed from those of France only in greater hastiness of execution and want of expression, but gradually a love of empty display became manifest in them. In the extent of the representations and in the number of figures the adopted style became more luxurious and elaborate on Spanish soil than in its native France; still, there was no increase in ideal significance or artistic merit. The profusion of stone sculptures upon the façades (compare *Fig.* 374), and the dimensions of the carved altar-pieces

(retablos), though leading to an extensive activity, greatly impaired the thoroughness of execution. The Spanish designers had no understanding of that organic connection which should be maintained between architecture and sculpture, and the numerous embellishments introduced by them could not compensate for this want of harmony. The redundant sculptured decoration was merely an appendage to the architectural framework. It is plain that in sculpture, as in architecture, the chief attention was devoted to

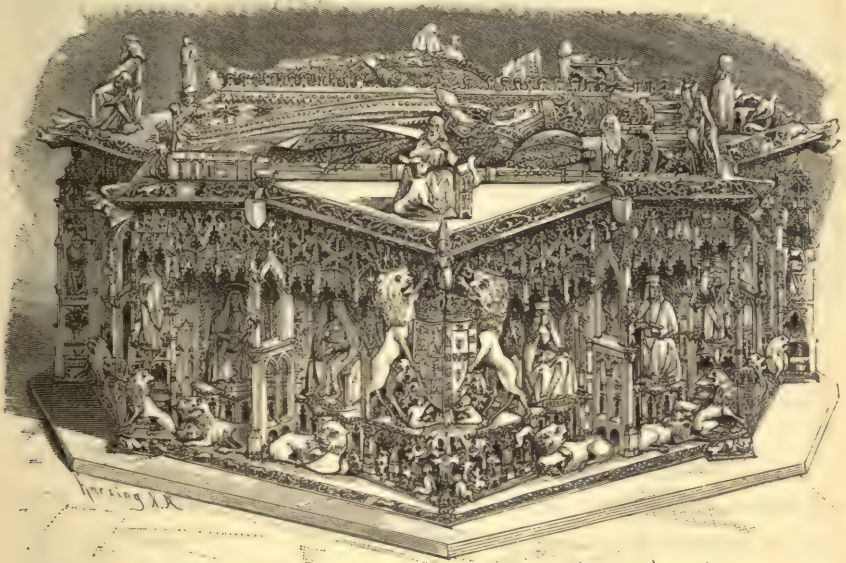


Fig. 397.—Funeral Monument of King Juan II. and his Wife in the Carthusian Convent of Miraflores.

richness of effect,—depth of expression and faithfulness in details being sacrificed without scruple. The Oriental delight in elaborate ornamentation is everywhere apparent,—the whimsical and surprising being preferred to the constructive, the fanciful and irrelevant to the consequential. A comparison between the funeral monuments of the late epoch is interesting and instructive. The solemnity and dignity of Sluter's ducal monuments at Dijon contrast strikingly with the restless and fantastic character of the Spanish productions, such as the sarcophagus of King Juan II. and his

wife, executed in 1490 (*Fig.* 397), and that of the Infante, both in Miraflores near Burgos. And yet the same influence of the Netherlands which has been observed in France found its way also beyond the Pyrenees. It was not, however, represented by so excellent an artist as the master of Dijon, nor had, in the preceding age, the field been prepared for its adoption by such eminent national works as those of Rheims, Paris, Amiens, etc.

Judging from the wood-carvings preserved in the Museum of Valladolid, it is to be assumed that the excessive naturalism which characterizes the Spanish painting of the seventeenth century was also a prominent feature in the art of the fifteenth. It was therefore natural that the courtly and chivalric art of the French should not be retained in this country, whose sculptures present so great a contrast to those of the Netherlands and Germany. The character of the Spanish productions is pathetic but somewhat exaggerated, —rarely ennobled by any high conception or beauty of form. In this latter respect these works resemble those of Germany rather than those of France. The strong and uncontrolled passions of the lower classes are freely expressed, the way being thus prepared for the art of Ribera, which could have arisen only on this traditional foundation.

The Gothic sculpture of the Scandinavian countries was entirely without independence. German influence was altogether dominant, proceeding chiefly from the northern Lowlands, particularly the provinces of the Baltic. Poland and Hungary were in like manner dependent upon the German territories adjoining them. Cracow forms in some measure an exception, having derived its artistic methods from Nuremberg.



Fig. 398.—Cologne Triptych, dating from the close of the fourteenth century. Museum of Cologne.

PAINTING OF THE GOTHIC EPOCH.

IT might have been supposed that the new conditions of culture which obtained in the ages of the Gothic would have found no earlier and no more striking expression than in the art of painting. The nature of this art is so impressionable as to render it sensitive to every change of popular conception, every advance or decline of national civilization. Strange to say, the painting of the Gothic epoch is no such index. Architecture, the most stable art, was the first to give expression to the new ideas; painting, the most mobile, the last. Painting retained earlier traditions even longer than sculpture, and continued to bear the stamp of the Romanic style until late into the thirteenth century. This was even the case in France, which, in regard to the development of the Gothic, was at least five decades in advance of any other country.

Circumstances did not at first favor the rise of a national art of

painting. In this branch all efforts were devoted to the service of the Church and of chivalry, both of which were international. The same was, indeed, true of architecture; but in it the innovations were less dependent upon ecclesiastical ordinances than in painting, because of the religious subjects to which the latter was restricted. Moreover, constructive improvements were not so readily communicated from country to country as were works of literature and painting. Books and paintings, combined as they were in illuminated manuscripts, were widely circulated from convent to convent, through journeys of the brethren and through the gifts of princes. The reproduction of these tended towards conservative archaism rather than towards the adoption of new methods. The traditions of the old convents were opposed to innovations, even in painting, and the strict principles of the new orders, the Cistercians, Minorites, and Dominicans, were altogether unfavorable to luxury in this direction. Through the secularization of the arts painting had in great measure come into the hands of the laity, but its dependence upon the libraries and schools of the convents was much longer continued than was that of architecture and sculpture. This state of things was not changed even by the introduction of illuminations into secular books, although no traditional models existed for representations of the kind.

Through the development of Gothic architecture, painting was almost entirely debarred from one of the chief fields of its employment. The architectural memberment of the wall surfaces rendered extensive mural paintings impossible, and the colored decoration was more restricted to the ornaments than it had been in the Romanic epoch. This was the greater disadvantage, as in this branch of painting, more than in any other, an elevated and ideal aim was of the utmost importance, and could alone lead to a true progress, while in the art of illumination, which, like the writing of the manuscripts, required rapid production, a certain dilettantism, retained from the Romanic epoch, better sufficed.

Thus in France, the native country of the Gothic style, only one branch of monumental painting remained, that upon glass; and even in this the Romanic tendencies were predominant for nearly a century. The difficulty of execution here tended towards con-

servatism, much as had been the case in mosaic work, which admitted of little artistic freedom and individuality. Painting upon glass demanded a high degree of technical training, but it was otherwise with the embroidered dorsels and canopies which had taken the place of mural decoration. These were much in vogue, and were left almost entirely to the untrained hands of women.

In the early centuries of the Gothic period, painting upon panels was in its first stages, and but rarely practised. The altar consisted usually of a table with a reliquary standing upon it; painted altar-pieces in the form of triptychs, such as had occasionally appeared in the Romanic epoch—instance those of Soest—were altogether exceptional. The representations upon these latter were at first limited to rows of saints upon gold ground, each standing under a Gothic canopy, carved in relief. When compared to the Romanic enamelled work in precious metals they show little progress. Paintings upon panels had developed no peculiar style, as the wood upon which they were executed was prepared for their reception by a thick priming of chalk, so that the methods adopted in this branch were essentially the same as those of painted wall decorations. Even before the introduction of the Italian fresco, the addition of a glutinous matter to water-colors, the so-called *tempera*, was not infrequent in mural painting.

Thus, painting upon glass was the only form of monumental art fitted to take the place of the wall paintings of the Romanic style, and it is not strange that it should have exerted great influence upon all other works in color. Its effect is plainly seen, even in illumination, which held the second place in the painting of the Middle Ages. Until the time of Louis IX., A. D. 1226 to 1270,—that is to say, during the first century of the Gothic style,—the art of illumination had altogether retained the traditional methods, and had developed no greater activity than during the preceding epoch. The foundation of the Library of St. Louis appears to have given the first great impulse to the subsequent development, the example of the king being followed not only by his influential vassals, but by other monarchs. In all the courts of Europe the lavish illustration of books came into fashion. After this time professional writers and illuminators, standing in no connection with the convents, begin to

appear in the tax-lists. Dilettantism gradually developed into trained proficiency, and this, in its turn, into artistic attainment. The outlines drawn with the pen became distinct and exact, and to the constant endeavor clearly to present the chosen subject was now added a certain sense of beauty in form and color. In the latter respect the aim was less directed towards truth to nature than towards a brilliant decorative effect, a fine deep blue and gold being employed even in the elaborate patterns of the background. This was due to the attractive influence of painting upon glass. The unbroken tints are the same as those of the transparencies; the heavy outlines resemble the leading, and the limitation of shading to lines of the pen, without alteration of the local tones, resulted from an imitation of the effects produced upon the glass by the so-called black solder.

In the fourteenth century, and especially in the age of Charles V., A. D. 1364 to 1380, all this was altered. After the erection of the Sainte-Chapelle, under Louis IX., mural painting acquired a higher importance,—further increased by the construction of palatial edifices. In the descriptions of the residences of Charles V. and his successors, reference is often made to the fine effect produced by mural paintings, combined with wainscots and tapestry hangings. This threefold decoration was also adopted in the palaces of England and Germany. At this time, or but little earlier, a great advance was made in the mural decoration of the churches and convents of Italy, where this branch of painting soon became superior to all other work in color. Glass painting had by that time wholly lost its Romanic character, and had adapted itself to the surrounding architecture, giving up the simple circular or segmental borders in favor of Gothic tabernacles with painted gablets and finials. Miniature painting also attained great individuality, acquiring more and more a historical and *genre* character. This was in great measure due to the prominence of secular books in the libraries of the courts. Backgrounds, of patterns or gold, were superseded by interiors or landscapes; and the first traces appear of that realism which finally led to the art of the Netherlands,—especially to the panel painting of Flanders and Brabant. Throughout the fourteenth century, painting upon glass and in miniature remained the chief representatives of art in color north of the Alps,

the other branches, until their final emancipation, being altogether dependent upon these.

The panel painting of the Northern countries, which became so important in the fifteenth century, resulted from the combined influence of these two branches. After that time France was no longer the centre of development; the greatest improvement in panel painting was effected in the Netherlands, and at the same time efforts were made in various parts of Germany to keep pace with this advance; not always, however, with entire success. The artists of Germany could neither rival, on the one hand, the panel paintings of the Netherlands, nor, on the other, the mural paintings of Italy, which had begun to exert an influence upon other branches of this art. By the middle of the fifteenth century the superiority of the Netherlands and of Italy was fully declared, these countries offering the greatest promise for the future.

FRANCE.*

The monumental sculpture of France soon adapted itself to the requirements of Gothic architecture, especially in regard to stylistic character. Wall painting, however, which, up to this time, had been the chief branch of colored decoration, was by no means furthered by this development. In consequence of the resolution of the wall surfaces into piers, its former field of employment was greatly restricted, and, in the subordinate part which it was allowed to take, remained conventional and indifferent. The few existing memorials of early Gothic painting, such as those in the Cathedral of Tournus, are in the highest degree crude and immature. A certain advance is evident in some fragments from the lower story of the Sainte-Chapelle. But the remains preserved from the time of Louis IX. are not sufficient to give an adequate idea of the mural painting of that age. In like manner, the materials for a historical con-

* T. B. Eméric-David, *Histoire de la Peinture au Moyen-âge*. Paris, 1842.—P. Lacroix, *Les Arts au Moyen-âge et à l'époque de la Renaissance*. Paris, 1869.—J. Labarte, *Histoire des Arts industriels*. Paris, 1864–1866.—F. de Lasteyrie, *Histoire de la Peinture sur verre d'après ses monuments en France*. Paris, 1853–1857.—H. Shaw, *The Art of Illuminating as practised during the Middle Ages*. II. Ed. London, 1870.—A. Lecoy de la Marche, *Les manuscrits et la Miniature*. Paris, s. a.

sideration of the pictorial art of the fourteenth and fifteenth centuries have been almost entirely swept away by the hand of time, by destructive architectural renovations, and by the Iconoclasts,—both those of the Reformation and of the Revolution.

Paintings upon glass, however, exist in great number. The works of the time of Abbot Suger in the first Gothic cathedral, that of St. Denis near Paris, are still entirely Romanic, as might have been expected (*Fig. 399*). It is more surprising that the oldest of the one hundred and forty-six of the Cathedral of Chartres and



Fig. 399.—Part of one of the Windows of St. Denis, Paris.

the one hundred and eighty-three of the five-aisled Cathedral of Bourges, referable to the twelfth and thirteenth centuries, should show Romanic features in the arrangement of figures and ornamentation. This applies also, in greater or less degree, to those of the cathedrals of Sens, Le Mans, Auxerre, Noyon, Soissons, Chalons, Troyes, Rheims, and Amiens. Chartres seems to have been a centre for glass painting. This branch of artistic activity was not, like stone sculpture, connected with the schools of architecture, the execution of colored glass demanding a well-organized manufactory; moreover, the removal of the completed works to their place of

destination could be effected without great difficulty. The glass windows were generally the gifts of princes, wealthy citizens, or guilds. This accounts for the lack of organic connection between the representations, even in windows executed at about the same time. Allusions to the donors and their patron saints, attributes, devices, and even *genre* groups illustrating the industries of the guilds, are frequent.

During the thirteenth century the windows were for the greater part divided into panels, but in the fourteenth the framework took the forms of Gothic tabernacles similar to those which had been adopted in the sculptures of the façades. Such Gothic details, in harmony with the luxurious architectural decoration of the edifices, are seen in the windows of the cathedrals of Beauvais, Evreux, Narbonne, Carcassonne, etc. At the same time, the former, simpler method of dull local tones was given up, and the drawing was no longer limited to black lines, without light and shade. Other tints were employed besides the three primary colors, and the black solder was in some cases replaced by a yellow enamel. This latter was of especially good effect in the so-called grisailles, windows painted gray in gray. The figures, increased in size, gained also in modelling and shading. Finally, a method was invented of coating the glass with a film of color on one side only, so that high lights could be introduced by thinning this superface. This invention, which was not made before the fifteenth century, increased the artistic effect, but led to a decline in regard to style. The figures became rounded as in a relief, the backgrounds gained in perspective, and the compositions were extended. All this, however, was not in conformity with the flat and tapestry-like character which is alone appropriate to windows and pavements, and was thus opposed to the stylistic requirements of glass painting.

Panel painting was but little practised in France before the fifteenth century. There have been preserved from the fourteenth some altar-pieces with figures of saints, painted or in relief, surrounded by a Gothic framework, and also several shrines with panels of similar treatment; but in this direction France does not appear to have attained to any higher artistic importance until the influence of the Netherlands had made itself felt. During the four-

teenth century artists were called from Italy to Avignon, and from the Netherlands to Dijon,—rather from a lack of native workmen than from any especial preference for the style of these countries. The phenomenal advance of the Flemish and Italians in painting rendered it natural that this state of dependence should continue throughout the fifteenth century.

In miniature painting, on the other hand, France, during the thirteenth and fourteenth centuries, took the lead of all other European countries. The art of writing and illumination, which in the period of the early Gothic still retained the traditional methods of the convents, was first freed from monastic limitations during the reign of Louis IX., who greatly furthered this activity by the founding of his library. The artistic taste of this king could not be satisfied with the crude and weak dilettantism of the previous works, and miniature painters found it necessary to make every effort in order to equal the workmen in other branches of art. The technical progress is evident in the systematic introduction of body colors, in place of the light tints formerly employed. The outlines are clear and distinct, the pigments applied with care and precision, and the brilliant colors produce an effect similar to that of painting upon glass. There is no trace of chiaroscuro, of modelling, of perspective, or landscape background; still, the new style is clearly expressed, the traditional forms and composition having given way to new conceptions derived from a direct study of nature. In the Psalter of St. Louis, for instance (Bibl. Nat. Lat., 10,525), Abraham's battle with the kings is represented by a combat of French knights in coat of mail, and Potiphar's wife (*Fig. 400*) appears as a noble French lady. These personages fit well into their Gothic framework. The figures are no longer heavy and stiff, but of lively action; not aged and sullen, but young, supple, and natural in their attitudes. There is, however, a certain lack of energy and individuality. Even the dedicatory pictures show scarcely a trace of that portrait-like resemblance which was so pronounced in the Carolingian manuscripts.

In the beginning of the fourteenth century the colors of the manuscripts lost their brilliancy, but acquired a greater variety and truth to nature. Some weak attempts were made to go beyond

mere pen-drawing, and to attain a pictorial effect by modifying the local tones in light and shade. An advance was also made in regard to individuality, as may be seen by a comparison of the portrait figure of Louis IX. (*Fig. 401*), referable to the beginning of the fourteenth century, with that of Charles V. (*Fig. 402*), dating from 1379.

The initials retained certain reminiscences of the Romanic treatment, but the decoration of foliage, combined with animals and monsters, developed into the lively border drawings known as *drolleries*. The intertwined dragon-like forms, of no significance in the representation, were replaced by allusions to fables of animals, with corresponding *genre* scenes. The ornamentation became more delicate, brier-vines being chiefly chosen; it was gracefully executed in gold and colors, and far surpassed in taste and elegance all previous works of the kind. This combination of pictures, initials, and borders was of a decorative and harmonious effect, and fully justifies the assertion that miniature painting attained its greatest eminence at this time, rather than in the age succeeding Van Eyck.

The library of King Charles V., A. D. 1364 to 1380, contained no less than nine hundred volumes of illuminations. His brothers, Jean, Duc de Berri (d. 1416), and Philip the Bold, Duke of Burgundy (d. 1404), were also amateur collectors of illustrated manuscripts. The demand thus created gave occupation to many artists, and these naturally could not always be found in France. It even

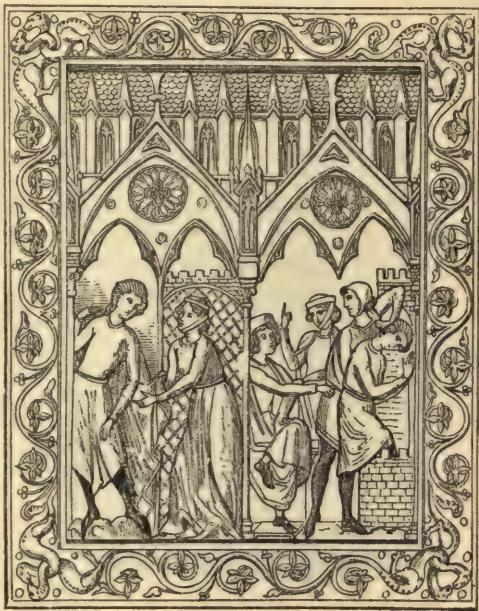


Fig. 400.—Scenes from the Story of Joseph. Miniature from the Psalter of St. Louis.

seems that the best illuminators were foreigners. A Flemish painter, John of Bruges, was employed by Charles V., and in the service of the Duc de Berri were several artists from the Netherlands, among them Paul of Limburg, Jacquemart Hedin, and the celebrated Andrien Beauneveu from Hainault. This shows that even before the time of Van Eyck the painting of the Netherlands had exercised an influence upon the art of France similar to that observed in the province of sculpture at the court of Philip the Bold



Fig. 401.—Miniature Portrait of King Louis IX., from a Document referable to about A. D. 1320. National Archives, Paris.

at Dijon,—not to speak of the Romanic bronze-work of the Dinandiers. As was the case also in sculpture, French illuminators,—such as Raoul d'Orléans, who was employed by Charles V., and Jean Nichasius, who worked for the last Duchess of Brabant,—appear side by side with Flemish artists; the influence of the latter, however, was undeniably predominant. The *Petites Heures* of the Duc de Berri, painted in great part by Andrien Beauneveu, between 1401 and 1403; Jacquemart's *Grandes Heures* of 1409, both in the National Library of

Paris; and the *Heures*, partly illustrated by Paul of Limburg, dating from 1416, now in possession of the Duc d'Aumale, are among the finest codices existing. That they were highly prized even during the lifetime of the artists is evident from the fact that Jacquemart's *Heures* were valued at four thousand livres Tournois in the inventory of the estate of the first possessor. Books of almost equal importance also exist to which no names of artists

are attached, such as the *Mariale* in the Bibliotheque Mazarine at Paris, and the *Heures* of 1407 in the Bodleian Library at Oxford.

The fully-developed realism of the art of the Netherlands of the fifteenth century never appears in the French illuminations. The ideal character, and the sentimentality typical of the later Gothic, always remained in the religious representations,—a certain similarity thus resulting to the school of Cologne. After the time of Charles greater attention was given to portraiture, although that



Fig. 402.—Miniature Portrait of King Charles V., from a Document dated A. D. 1379.
National Archives, Paris.

truth to nature in all its details which characterizes the work of Jan Van Eyck could not be attained, the *gouache* treatment not admitting of the refinement peculiar to oil painting. Notwithstanding all this, France retained some degree of independence, which can be traced even in Burgundy at the court of Philip the Bold and his successors, and in the Provence, at the court of King René of Anjou, although the influence of the Netherlands was especially marked in these two provinces. National peculiarities were most prominent in those districts of France which had no direct inter-

course with the Netherlands. In the second half of the fifteenth century appears a French illuminator of great importance and eminent independence, Jean Fouquet of Tours.

Fouquet was not a painter of miniatures alone. The diptych of Melun, the work of his hand, fully explains the admiration which was excited, even in Italy, by the portrait of Pope Eugene IV., referable to the year 1445. One panel of this diptych,—that containing the portrait of Agnes Sorel as the Virgin,—is in the Museum of Antwerp; the other part,—with the treasurer of King Charles VII.,



Fig. 403.—St. Martin and the Beggar. Miniature by J. Fouquet. Collection of Feuillet de Conches, Paris.

Étienne Chevalier, in the character of St. Stephen,—is in the possession of L. Brentano in Frankfort-on-the-Main. The chief ability of Fouquet, however, was displayed in illumination. The French translation of Boccaccio, dating from 1458, now in the Library of Munich, and the fragmentary prayer-book of Étienne Chevalier in the collection of L. Brentano show, in conception as well as in execution, influences derived from the Netherlands and Italy; but the composition and the heads are entirely French, and this excellent master deserves to be considered as a true representative of his na-

tion. The style of Fouquet forms a transition between the Gothic and the Renaissance. Notwithstanding his endeavor to effect a compromise, his works clearly show that, in the rivalry between the Netherlands and Italy, the latter was to be successful.

ENGLAND.*

The dependence of the Britons upon the artistic methods of the Continent was the same in painting as in sculpture. Even in the time of Henry II., A.D. 1216 to 1272, painters were called from Italy, Germany, and France, the productions of the English themselves being of but secondary importance. It was probably owing to Italian influence that mural painting attained a greater importance in England than in France, the clergy emulating the court in the decoration of chapels and halls. Unfortunately there are but few memorials of this activity. In regard to the Painted Chamber of Westminster, referable to the thirteenth century, our information is derived solely from descriptions; and of the extensive mural paintings, executed in the fourteenth century under Edward III. in the Chapel of St. Stephen at Westminster, only inexact drawings from the year 1811 now remain. They suffice, however, to exhibit the dependence of the originals, in stylistic respects, upon France; this becomes especially evident by a comparison with French glass paintings. The resemblance to these latter is particularly striking in the painted windows of the cathedrals of Salisbury, Lincoln, York, etc.

The panel painting of England shows few original features, even in the portraits, and displays the influence of Italy rather than that of France, which is the more surprising as the French, after the fourteenth century, had cultivated this branch with great success. The diptych of King Richard II. in Wilton House, and the portrait of the same king in Westminster Abbey, betray the hand of a master trained in the school of Giotto or in that of Siena. It cannot be ascertained whether the superfrontale of Westminster, dating from the beginning of the fourteenth century, formerly placed

* H. Walpole, *Anecdotes of Painting in England*, edited by R. N. Wornum. London, 1849.

above the high-altar but now in the southern transept, is an English production or was imported from abroad. At all events, the work, in style as well as in the arrangement of the figures of saints standing in tabernacles, and the small scenes in the compartments, cannot be distinguished from the French altar-pieces of the age succeeding Louis IX.

The best results in England were attained in miniature painting, as had been the case during the Anglo-Saxon period. The early national tradition was here worth preserving, and retained its hold even until the close of the thirteenth century, long after the influence of France had changed the general character of this as of all other branches of English painting. The gorgeous red and blue colors derived from glass painting and customary in the miniatures of the age of St. Louis, did not continue to be long employed in England. Particular attention was devoted to elaborate borders, these giving ample opportunity for British humor to indulge in somewhat broad drolleries. On the whole, English works show realistic tendencies and a taste for portrait-like characterization. It is worthy of note, in this connection, that the English did not readily accept the methods of their Dutch neighbors, either in illumination or in panel painting. Although artists from the Netherlands were occasionally employed in England, their influence is never apparent in the art of this country. This was undoubtedly due in great measure to the unfavorable political conditions of the island in the second half of the fifteenth century.

ITALY.*

In no other country of Europe affected by the Gothic style was the development of architecture so divergent from that of France as in Italy; in none was the sculpture so individual. This inde-

* G. Rosini, *Storia della pittura italiana, esposta coi monumenti*. Pisa, 1839-1854.—F. v. Rumohr, *Italianische Forschungen*. Berlin, 1827-1831.—E. Förster, *Denkmäler der italienischen Malerei, Geschichte der italienischen Kunst*. Leipzig, 1870-1882.—Crowe und Cavalcaselle, *Geschichte der italienischen Malerei*. Leipzig, 1869-1876.—C. Schnaase, *Geschichte der bildenden Kunst im Mittelalter*. II. Ed. Vol. V. Düsseldorf, 1878.—W. Lübke, *Geschichte der italienischen Malerei*. Stuttgart, 1878.—J. Burckhardt, *Der Cicerone*. V. Ed. Vol. III. Leipzig, 1884.

pendence was still more marked in painting. Northern influences can be traced in the architecture of Italy, and a certain similarity may be detected between the sculptures of Rheims and Siena; but there is not the slightest connection between the Tuscan painting of the fourteenth century and that of France and Germany.

The country of the Apennines was, in painting, influenced by artistic traditions of much less promise than those of the North. Neither in Germany nor in France had the painting of the Romanic epoch been so utterly outworn and debased as that of the early Christians and Byzantines, or so crude as the independent attempts of Italy. In the Northern countries the conventional and the original elements had already formed a combination of much fecundity, the existing methods and types being transformed and improved. In Italy, on the other hand, it was necessary to cast aside altogether the decrepit and sterile art which had previously obtained.

The painting of the Gothic epoch in Italy differed also from that of France and Germany, inasmuch as far less attention was devoted to illumination and stained glass, the Italians chiefly furthering mural and panel painting,—branches which on the north of the Alps were almost wholly neglected during the thirteenth and fourteenth centuries.

Among the productions of Italy in this art, it is beyond question that the best were those which followed Byzantine traditions,—derived either from the works of Ravenna, of the time of Justinian, or from the examples in Venice, Rome, and Lower Italy imported during later ages from the Eastern Empire. The mosaics of the Cathedral of Spoleto, executed by Solsernus A.D. 1207, and those of the Baptistery of Florence, referable to Andrea Tafi and Fra Jacopo, completed in 1225, in their servile imitation of older Byzantine models can claim no higher merit than that of technical ability; yet, notwithstanding this dependence, they are superior to the productions of those contemporaries who endeavored to carry out their own original designs. This is true even of the most esteemed of these artists: Giunta Pisano, for instance, who worked between 1210 and 1236, and is at his worst when he emancipates himself from Byzantine models; or Margaritone of Arezzo, A.D.

1236 to 1313, whose helpless and uncouth dilettantism is apparent in a large picture in the National Gallery of London.

The chief merit of Giovanni Cimabue of Florence and his contemporary Guido (Graziani) of Siena consists in having given more grace and gentleness of expression, and more action to their colossal madonnas, especially, also, to the surrounding angels, than had previously been attempted. In conception and execution they were still hampered by Byzantine limitations. The Madonna of Cimabue, in the Capella Ruccellai of S. Maria Novella at Florence (*Fig. 404*), and those in the Academy of that city and the Louvre, have about the same moderate degree of animation as that of Guido in S. Domenico at Siena; it is hence impossible to speak of a break of the traditions through striking innovations in this regard, or of any marked contrast between Florentine and Sienese art. The superiority of Cimabue may be conjectured from his mural paintings at Assisi; these would doubtless serve to heighten the estimation in which he is at present held, were it not that their bad state of preservation obliges us to base our opinion chiefly upon the madonnas before mentioned. At all events, the series in question exhibits much life in gesture and expression, contrasting strongly with the stiffness of the traditional types, and showing features fully worthy of the master of Giotto.

If Cimabue was not quite equalled by his contemporary Guido of Siena, he appears to have been surpassed by the Sienese Duccio di Buoninsegna, who worked between 1282 and 1320. The chief fame of this artist, as of Guido, was attained in panel painting, but he deserves to be considered in this connection because of the monumental size of his most remarkable work, the altar-piece of the Cathedral of Siena, executed between 1308 and 1311, and now existing only in fragments. Although the Byzantine character is still evident, the Madonna shows a great advance in regard to expression, and this is even more marked in the angels and saints. The representations of the Passion, formerly upon the back of the altar, are of simple arrangement, ennobled by a spirituality quite new in Italy, but which in later times became characteristic of the Sienese and Umbrian schools.

The fame of Duccio was obscured by that of his Florentine con-



Fig. 404.—Madonna Rucellai, by Cimabue, in S. Maria Novella, Florence.

temporary, Giotto di Bondone, who was born in Del Colle, near Vespignano, about the year 1266. He stood in a relation to the sculptor Giovanni Pisano similar to that of Cimabue to Niccolo.

The two latter artists have certain archaic and Romanic tendencies in common, while the two former resemble each other in their realistic methods, more in harmony with Gothic ideals. In regard to truth to nature, in form and expression, Giotto learned more from Giovanni Pisano than from his master Cimabue, whose archaism and Byzantinism he endeavored to overcome. The peculiar merit of Giotto's art consists in the substitution of his own observation of nature for outworn forms, of his individual ideas for traditional conceptions. Similar attempts had previously led only to a crude dilettantism: the genius of Giotto was the first to master this difficult task. In order to accomplish this he simplified his means as much as possible, avoiding all complications, and endeavored only to represent his subject faithfully and clearly. The positions, gestures, and garments are simple and unaffected; ornamental lines and effective draperies were as foreign to his nature as were rich details or elaborate architecture and landscapes. The heads are typical and of no individual interest, being normal, but with little personality or beauty. The gestures are moderate and natural, but not always rendered with understanding of the structure of the body, the lack of which is especially manifest in the inorganic hands and feet. On the whole, the dramatic action is well balanced and forcibly expressed. There are no purposeless and idle figures; each takes a direct part in the scene. The naive rendering agrees well with the simple and artistic conception. There is always an impressive truth of characterization, the imposing effect of which is heightened by the scanty means employed.

Giotto seems to have followed Cimabue to Assisi about the year 1296, where, as the assistant of his former master, he executed the paintings of the Chapel of S. Francesco, consisting of twenty-eight representations of the legend of that saint. It was of much importance for the development of Giotto's style, that, in this first task upon which he was engaged, the novelty of the subjects rendered a strict adherence to traditional models impossible. It is not known whether the resolution to give expression to his own original conceptions, even in those representations which for centuries had been conventionalized, dates from the time of his employment in Rome, between 1298 and 1300. His works in that city,—especially

the much-restored mosaic of St. Peter walking upon the sea (the so-called Navicella), in the portico of St. Peter,—are in so bad a state of preservation that no certain conclusions can be drawn from them. It may, however, be presumed that the nature of the technical execution, and the previous training of his Roman assistants, greatly interfered with the display of his own originality. This was the more natural in Rome, where numerous works had at that time been executed in the traditional method; as, for instance, the series of mosaics of the life of the Virgin in the apse of S. Maria in Trastevere, completed by Pietro Cavallini in 1291; those in the apses of S. Giovanni in Laterano and S. Maria Maggiore, referable to Jacopo Torriti, A.D. 1288 to 1292; and those in the portico of the last-named church, by Filippo Rusuti. Giotto more systematically carried out his peculiar conceptions and methods in the next painting upon which he was engaged, between 1303 and 1306: his most extensive and best preserved work, the decoration of the Chapel of S. Maria degli Scrovegni at Padua, usually called dell' Arena, because of the neighboring amphitheatre.

The edifice is itself bare and of no architectural importance, but the walls are entirely covered with paintings, all of which are by Giotto, excepting those in the choir, and the representations of the Virtues and Vices, gray in gray, on the socle. There is no trace of the subordination of painting to architecture, the building being constructed with sole reference to mural decoration. The three horizontal rows of pictures, one above another, are altogether opposed to the vertical tendencies of the Gothic style. Even greater freedom, however, was exhibited in regard to the mode of artistic presentation. In the choice of subjects, and especially in their employment for larger or smaller compositions, Giotto is here entirely original. At times the dramatic, at times the epic element prevails, and even *genre* features appear,—only the lyric character of Sieneſe painting is lacking. There are no reminiscences whatever of the courtliness and conventionality of French art. Giotto's expression of sentiment is forcible, occasionally exaggerated, and shows democratic power rather than aristocratic self-command and dignity. In pathetic scenes, such as the Entombment, it rises into wild passion; the gestures are unrestrained, the lamentation clamorous. The ac-

tion is so concentrated that the foremost figures turn their backs upon the beholders. Never is a figure introduced for the sake of effect, never has an attitude been chosen because merely it was favorable to the composition; on the contrary, it often happens that positions extremely disadvantageous in artistic respects are adopted through a desire to attain a striking characterization of the subject.



Fig. 405.—The Awakening of Lazarus. Wall Painting by Giotto in S. Maria dell' Arena at Padua.

There is no trace of portrait-like individuality. The type of face represented by the artist is always the same, the narrow almond-shaped eyes with the dark pupils are unnatural, and the other features but little studied, yet the countenance conveys the intended expression. The modelling of the body is often incorrect, but the positions and gestures are rightly conceived, and, in the principal figures at least, full of dignity and grandeur. The garments have

entirely lost the Byzantine superabundance of folds. When compared with the rich draperies of Northern Gothic art they have almost a scant appearance; still, the necessary lines are given with fine taste and discrimination. The minor parts are well subordinated, and the details, so prominent in Northern art, are here but secondary. The landscape and vegetation are extremely simple, and the



Fig. 406.—The Vow of Poverty. Painting by Giotto upon the Ceiling of S. Francesco at Assisi.

architecture merely symbolical; the animals are treated as accessories, with no deep study of nature.

The later works of Giotto show greater maturity of style, correctness of form, higher expression, and even beauty. This is evident in the four allegorical paintings of the ceiling, at the intersection of transept and nave in the lower story of S. Francesco at Assisi, representing the apotheosis of the founder of the order, and the three vows of Poverty (*Fig. 406*), Chastity, and Obedience.

The improvement is still more noticeable in the series of the lives of St. Francis, St. John the Baptist, and St. John the Evangelist, in the chapels of the families of Bardi and Peruzzi in S. Croce at Florence, which far surpass the similar representations at Assisi and Padua. It is only to be regretted that they are not nearly so well preserved as those last mentioned.

Giotto opened to the painting of Italy its chief field, that of mural decoration, executed *al fresco*,—in water-colors upon fresh plaster,—this process having apparently been introduced by him. Mosaic-work was almost entirely superseded by this method, and even glass painting, the monumental art of the North, was considered so far inferior that it was but rarely employed in Italy. Nor did the other branches of painting become popular. While, in the northern countries, during the fourteenth and fifteenth centuries, miniature-like panel painting and the illumination of books were preferred, in Italy the best artists devoted their activity to monumental fresco. Giotto was employed, with a large number of pupils and assistants, in Assisi, Rome, Padua, Rimini, and Naples, to which places he was called with much honor. He finally established his school in Florence, then the centre of Italian culture, thus giving to the painting of that city a pre-eminence which it maintained for more than a hundred years.

At the death of Giotto, A. D. 1337, his school was firmly established. Among his pupils, Taddeo Gaddi (d. 1366) longest enjoyed the training of the master, and, in the mural paintings of the Capella Baroncelli in S. Croce in Florence, approaches most closely to the works of Giotto in the same church,—being inferior to him only in concentration and force of dramatic action. If, as Vasari says, the decorations of the Chapter-hall of S. Maria Novella (the so-called Spanish Chapel) are by the hand of Gaddi, he is not without a certain individuality. These paintings are distinguished by a grandeur and depth of feeling which are seldom found in the works of Giotto, and rather resemble the products of Sienese art. It is not known whether the interesting symbolical compositions, which compare with the legendary representations of Giotto as do the principles of the Dominicans with those of the Minorites, are wholly referable to the artist, or were dictated by the scholastic theology of the breth-

ren. Bernardo di Daddo would rank with Taddeo, were it certain, or even probable, that,—as Milanesi assumes from the *Codex Gaddiani* in the *Bibliotheca Magliabechiana*,—he executed the large frescos in the Campo Santo of Pisa, the Triumph of Death and the Last Judgment, erroneously attributed by Vasari to Orcagna. The first of these pictures especially, in direct observation of nature and depth of thought, surpasses even the works of Giotto. The expression of the heads cannot be accounted for without assuming the Sienese influence of Simone di Martino. Among the more distinguished followers of Giotto must be mentioned the artist of the frescos in the Capella Strozzi, in the left transept of S. Maria Novella in Florence, which show a considerable advance over Giotto in the drawing of the human form; this is not, however, so apparent in the Last Judgment and the Hell as in the Paradise. The artist is Andrea di Cione (Orcagna—d. 1368), whose activity in architecture and sculpture has, like that of Giotto, been referred to.

Maso di Banco, who executed the frescos in the Capella S. Silvestro of S. Croce in Florence, was under the direct training of Giotto. But the influence of the great master is to be observed also in the works of artists not connected with his school, and in those of self-educated painters. This was the case with Buonamico Cristofani (Buffalmacco), if, indeed, the Crucifixion, Resurrection, and Ascension in the Campo Santo of Pisa are to be ascribed to him; probably, also, with Maestro Stefano, renowned as Scimia della Natura (Ape of Nature), and his son Giotto di Stefano (Giotto), although the lack of attested works does not warrant absolute certainty in regard to the two latter artists. The influence of Giotto, in the second generation of his Florentine school, is still strongly apparent in Agnolo Gaddi, Jacopo di Casentino, Giovanni da Milano, pupils of Taddeo Gaddi; in Francesco Traini da Pisa, the follower of Orcagna, and in Andrea da Firenze, Antonio Veneziano, Francesco da Volterra, Pietro Puccio da Orvieto, and others. Sienese influence is noticeable in several of these, but that of the school of Giotto is unmistakable in all. It continued unaltered far into the fifteenth century, through the third and fourth generations, as is shown by Spinello Aretino, Nicola di Pietro Cierino, Fra Lorenzo da Firenze, and Gherardo Starnina.

An acquaintance with the works of Giotto and his school is to be traced even in the style of artists who seem never to have visited Florence. The paintings of the *Incoronata* at Naples, which in the time of Vasari were held to be by the hand of Giotto himself, might to-day be so considered, were it not rendered certain, both by the subject and by the date of the erection of the chapel, that they must have been executed after the year 1352. It is not now known to whom they are to be ascribed, and it is possible that their artist was a Florentine; still, the attested works of the Neapolitan Roberto di Oderisio do not materially differ from them. The decoration of the *Capella dell' Arena* fully accounts, in point of style, for the works of Guariento in Padua and Venice, and for those of Altichiero da Zevio of Verona and Jacopo Avanzi,—who together executed the beautiful pictures in the *Capella S. Felice* of S. Antonio at Padua (*Fig. 407*),—without our being obliged to assume that these artists stood in any personal connection with Giotto. The influence of the master naturally appears in Bologna, in the productions of Vitale and Lippo di Dalmasio. Barnaba of Modena would not have been called to Pisa and intrusted with the execution of mural paintings if his art had not been deemed similar and equal to that of the other painters of the *Campo Santo*. In panel painting his methods were more archaistic, as were also those of Tommaso da Mutina, who transferred the scene of his activity to Prague, while Starnina worked chiefly in Spain.

No real progress is evident in the works of these artists. What was gained in correctness, particularly in the modelling of the hands and feet, was lost in ideal conception, the simple grandeur of the composition being neglected in the elaboration of the details. As a matter of course, a mechanical and mannered treatment, and forms without deep significance, became prominent; the more as the technical ability, practice, and experience increased.

Only in one Italian town, Siena, did any noteworthy independence appear, this being developed by a master whose artistic principles differed radically from those of Giotto, but who in many respects fully equalled the Florentine master. Mention has already been made of Duccio di Buoninsegna as emulating Cimabue. The fame of Giotto was similarly rivalled by his younger contemporary,

Simone di Martino, A. D. 1284 to 1344, whose chief work, the large mural painting in the Town-hall of Siena, representing the Virgin and Saints, was completed in 1315. The art of Simone has, on the whole, more in common with Gothic principles than has that of Giotto; he cared less for dramatic realism and characterization than for delicate expression combined with a high feeling for beauty, such as is seldom found in the productions of the Florentine school.



Fig. 407.—The Martyrdom of St. George. Fresco in the Capella S. Felice of S. Antonio at Padua.

The types of the Madonna, of the Angels and Saints (*Fig. 408*), as seen in this picture, and the reverent and devotional attitude of every figure, are to be found in the Gothic sculptures of France, but not in the works of the school of Giotto. The Sienese conception here evident is altogether opposed to the Florentine: the schools standing in such relation as that of Cologne to that of Flanders and Brabant. The same traits appear in the mural paintings of

Avignon, in which town Simone passed the latter part of his life. The artist, however, was by no means wanting in power, as is evident from the equestrian portrait of General Guidoriccio Folignani, executed by Simone, A. D. 1328, in the Town-hall of Siena, on the wall opposite the Madonna before mentioned. His fame is founded in great measure upon his portraits, chiefly those of women, which show great power of characterization. In this branch he adopted the practice of panel painting, as will be mentioned hereafter.

Simone's brother, Donato di Martino, and his brother-in-law, Lippo Memmi, seem to have been his assistants and imitators, the style of the master being recognizable in the Madonna of Lippo in



Fig. 408.—Part of the Fresco of Simone di Martino in the Town-hall of Siena.

the Town-hall of S. Gimignano. A more independent position was attained by the brothers Pietro and Ambrogio di Lorenzo. The former is known as a painter upon panels, while the latter deserves to be regarded as one of the greatest masters of his time, on account of his fresco in the Hall of the Nine in the Palazzo Publico of Siena, executed between 1338 and 1340. This latter work, one of the best productions of its kind of the Middle Ages, represents good government with its beneficent results, and, in a somewhat weaker companion-piece, tyranny and its consequences. In general arrangement the pictures resemble the allegorical paintings of the Spanish Chapel at Florence; but the scholasticism of the composition is more rigid and inartistic, the allegories being in this respect

inferior to those of Giotto in the Church of S. Francesco at Assisi. In beauty of form and expression, on the other hand, they far surpass all contemporary works of Florence, in some details even equaling the classic remains of Pompeii and of the oldest catacombs.

The other masters of Siena are more inferior to Simone and Ambrogio than are the later Florentines to Giotto. Barna, Bartolo di Fredi, Andrea Vanni, Taddeo di Bartolo di Mino, and others, had an academic and mechanical routine which, with the sentimental tendencies of the Sienese, often resulted in a vacant and disagreeable expression almost amounting to a grimace. The Hall of Paintings, at Siena, is thus unattractive and unsatisfactory. The attention of the later Sienese artists was directed rather to panel painting than to fresco, this corresponding not only to their individual abilities, but to the general tendencies of their school, which, while foreign to the epic and dramatic character of mural painting, were better adapted to small devotional pictures.

During the fifteenth century both schools attained to an eminence worthy of their great beginnings. The higher artistic qualities of both, the dramatic action of the Florentines, and the lyric sentiment of the Sienese were combined. This was effected by two masters, Masolino and Fiesole, whose appearance marks the transition from the Middle Ages to the Renaissance.

Masolino da Panicale, born about 1383, followed chiefly the methods of Giotto. It is not definitely known how and where he passed the early part of his life, nor whether he was indeed a pupil of Starina, as Vasari says. Between 1423 and 1425 he was in Florence; after this he worked for two years in Hungary, whither he had followed the fortunate adventurer Filippo Scolari; later he was employed in Castiglione d'Olona, near Varese, in the district of Como, where, in the Collegiate Church and in the Baptistery, he executed a number of paintings, those of the latter building being dated 1435. These are the only works which can be ascribed to him with certainty. It is possible, however, that they were preceded by those in the Chapel of St. Catherine in S. Clemente at Rome, and by the frescos in the Capella Brancacci of the Church of the Carmelites at Florence, which are undoubtedly referable to the beginning of the third decade of the fifteenth century. His share in the latter paint-

ings is not to be distinguished, and his works in Castiglione and S. Clemente, although of no slight merit, are based upon the style of Giotto; hence, it is not possible to place Masolino at the head of the great advance of the Quattrocento.

Fiesole, his contemporary, has better title to this distinction. Guido di Pietro, born at Vicchio, near Mugello, in 1387, upon entering the Dominican convent in Fiesole, A. D. 1407, took the name of Fra Giovanni, and wore the habit of the order until his death at an advanced age. The last decades of his life were passed in S. Marco at Florence, and in S. Maria Sopra Minerva at Rome. His training was certainly Florentine, but his ecstatic piety led him to an expression of sentiment similar to that of Simone and Ambrogio. Truly mediæval in his art, he felt, rather than understood, nature. There are many imperfections in the forms, but in the devotional rapture of his visions he envelops his figures in a celestial halo which admits of no doubt as to the depth of his inspiration, and compensates for many defects of drawing. He is at his best in the representation of glorified saints, a subject in which this most ecclesiastical of all painters has never been surpassed. He is inferior when he abandons the heavenly spheres of the blessed or the ecstasies of the holy ones on earth, and becomes almost scurrilous in representing malice and violence, feelings altogether remote from the heart of Angelico, as he was named at his beatification. If the compositions of Giotto may be termed dramas, those of Fiesole are hymns. Both are deficient in objective realism, but each in his own direction has great subjective power and truth.

The excellence of Fiesole was less dependent upon the spirit of his age than upon that of his subject. His best production is the large Crucifixion in the Chapter-hall of S. Marco, at Florence, which convent he rendered a museum of his art, every painting by him in the cells of his brethren being, in its way, of great effect and attraction. It may even be said that the attempt to attain a higher degree of realism, to which he was induced by the progress of his later contemporaries, was by no means advantageous. This is evident in the general effect of the series of paintings, begun by him in 1347, in the Chapel of Nicolas V. in the Vatican. In the main, however, he was but little open to outward influences, notwithstanding the fact

that, when his tomb in S. Maria Sopra Minerva at Rome was closed in 1455, the new era in Italian painting had long since commenced. The last mediæval artist of Italy, he fully expressed the mystic ecclesiasticism of the Middle Ages, as his younger contemporary, Fra Filippo Lippi, did the somewhat frivolous worldliness of the Renaissance.

The panel painting of Italy had few distinctive characteristics. It was practised but rarely by the eminent fresco painters, whose works of this kind make it evident that their chief activity was directed towards another branch. Panel painting long continued archaistic, and something of the Byzantine tradition was preserved, even by those artists who, in mural painting, had more or less emancipated themselves from it. Cimabue and Duccio di Buoninsegna were equally Byzantine in their Madonnas, while in the frescos at Assisi the former shows a far greater freedom. Even Giotto was unmistakably archaistic in the Madonna of d'Ogni Santi in Florence, now in the Academy of that city. His small, almost miniature-like pictures, however, such as the panels of the shrine in the sacristy of S. Croce,—now separated, and preserved in the galleries of Berlin and Munich, and in the Academy of Florence,—betray the character of the former models in enamel as little as the frescos retain the style of the mosaics which preceded them. All the panel paintings of Giotto show his inferiority in this branch as compared to fresco; this is notably the case with the Madonna of the Church degli Angeli near Bologna, now in the Brera of Milan,—the only work which bears his signature. The firm hold of archaism upon panel painting is evident even in the comparatively late Madonna of Bernardo di Daddo in Orsanmichele at Florence. This conventional character was not entirely overcome until the rise of the school of Taddeo Gaddi, who himself,—witness his altar-pieces in the Gallery of Berlin, A. D. 1334, and Siena, A. D. 1355,—more closely followed the style of Giotto's frescos than does Bernardo di Daddo. An exception is Orcagna's altar-piece in the Capella Strozzi of S. Maria Novella, which is but little inferior to his frescos.

Circumstances were more favorable to panel painting in Siena than in Florence. As we have seen, Duccio's fame was based upon a work of this kind, and Simone di Martino's large fresco in the

Town-hall of Siena, both in arrangement and treatment of details, has all the characteristics of an altar-piece transferred to a wall. That his chief activity was in panel painting is evident from records and from the works preserved; instance the large altar-pieces of Orvieto and Pisa, now in the Opera del Duomo and in the Seminary of Pisa, the Annunciation of the Cathedral of Siena, now in the Uffizi of Florence, and his portraits, highly praised by his contemporaries. His preference for gold in the backgrounds and patterned



Fig. 409.—Madonna, by Tommaso da Mutina.
Belvedere, Vienna.

garments, the greenish priming of the flesh tints, and other traits, show reminiscences of the Byzantine methods, which were retained also by Simone's brother-in-law and assistant, Lippo Memmi. Even Pietro di Lorenzo (Lorenzetti), who is known only as a painter upon panels from the works existing in Siena, Florence, and Arezzo, and who appears to have been the most distinguished master of this branch in the fourteenth century, could not entirely free himself from these archaistic tendencies; the same character is seen also in the works of Taddeo di Bartolo, a later artist of this declining school, who worked late in the fifteenth century.

Archaism is more noticeable in the provincial works, as, for example, in those of the two masters of Mutina, Barnaba and Tommaso (*Fig. 409*), not to speak of the paintings of the early schools of Venice and Murano, where Byzantinism was conscious and intentional. In the fifteenth century panel painting became entirely free from the old traditions, the works of Fra Giovanni da Fiesole, especially, showing no trace of it. His harmonious nature could accept

no technical dualism. The delicacy of his numerous easel-pieces, and their coloring, clear and cheerful, though somewhat cool, and at times too variegated, distinctly betray his preference for this branch of painting, and even for miniature; still, in composition and chiar-oscuro, his style is derived from fresco. With him, as with most Italians, mural paintings are not mere enlargements of panel paintings; on the contrary, these latter have rather the character of miniature-like reductions of monumental works.

The art of illumination which was so predominant in France, was, in Italy, of even less importance than panel painting. Celebrated names and distinguished works are not altogether wanting, and the centres of science, especially Bologna, which had attained an international celebrity, naturally furthered the writing of manuscripts. Dante praises two illuminators of Bologna, Oderigi da Gubbio, who lived at the same time as Cimabue, and Franco, the contemporary of Giotto; while, towards the middle of the fourteenth century, we hear of the Camaldolese monk Silvestro in Florence. But no works signed with these names are known, and the codices of Nicola da Bologna, referable to the second half of the fourteenth century, are of no great importance. In the productions of this period the style of Giotto and that of Siena are generally combined with influences from France,—the energetic decorative coloring of the time of Louis IX. frequently appearing.

Italian illuminators were occasionally called to France, even to the court of the Duc de Berri; this does not, however, imply their artistic superiority or even equality, as it must have been chiefly the result of the desire of the collectors for variety of treatment. France had as little need of furtherance from Italy in illumination as in glass painting. Until the middle of the fifteenth century the very best Italian miniatures were inferior in delicacy and beauty to those of France and the Netherlands, while there was little or no painting upon glass in Italy. The Italians can only be considered as missionaries of art in mural and, in some measure, in panel painting, in which branches they occasionally displayed a brilliant activity in foreign countries; instance Simone di Martino in Avignon, Gherardo Starnina in Spain, Tommaso da Mutina in Prague, and Masolino da Panicale in Hungary.

GERMANY.*

What has been said of the development of German sculpture during the Gothic period applies, in the main, to that of painting. The influence of France was neither rapid nor decisive in its effect. The Romanic style predominated in the works of the transitional epoch, and but little change is to be observed before the middle of the thirteenth century. In the Rhenish countries French conceptions were in some measure introduced into sculpture and painting through the erection of the grand cathedrals of Freiburg, Strasburg, and Cologne; but the remainder of Germany continued independent. Still, the conventional Byzantinism, the hieratic stiffness of monastic art, which during the Romanic epoch had not given way before the occasional attempts at realism, were soon altogether abandoned. They were not, however, replaced by that elegant idealism which was the expression of the courtly and chivalric French character, but by a realism based upon the family life of the burghers. The painting of Germany, which in the Romanic and transitional epochs had been entirely ecclesiastical, in the thirteenth and fourteenth centuries received the stamp of the middle classes, as the Gothic painting of France had that of the knights.

The conservatism of German painting manifested itself in the long retention of the early Christian, Carolingian, and Romanic methods of mural decoration, of which there was no trace in the French Gothic. It is true, the grand cathedrals erected in the new French style offered but little opportunity for wall painting; but this was provided by the more extensive wall surfaces of the smaller churches and chapels, in which German architecture had exhibited its full independence. Few examples remain from the thirteenth century, most of the works having been lost by rebuild-

* E. Förster, *Denkmale der deutschen Malerei*. Leipzig, 1855-1869.—J. J. Merlo, *Die Meister der altkölnischen Malerschule*. Köln, 1852.—L. A. Schreiber, *Die hervorragendsten anonymen Meister und Werke der Kölner Malerschule von 1460 bis 1500*. Bonn, 1880.—E. aus'm Weerth, *Wandmalereien des Mittelalters in den Rheinlanden*. Leipzig, no date.—C. Schnaase, *Geschichte der bildenden Künste im Mittelalter*. Second edition, Vols. IV. and VI.—A. Woltmann und A. Woermann, *Geschichte der Malerei*. Leipzig, 1879, 1880.

ing, or by whitewashing the walls, or through wilful destruction and the effects of time. The series of kings in the choir of the Church of Brauweiler on the Rhine, and the paintings of Rebdorf in Bavaria, now transferred in thirteen panels to the National Museum of Munich, suffice, nevertheless, to show the continuance of Romanic methods.

In the fourteenth century two widely different conceptions prevailed. In the Rhenish countries there was a style unmistakably



Fig. 410.—Wall Painting of the Church of the German Knights at Ramersdorf.

derived from French miniature and glass paintings. This is evident in the decoration of the walls and ceiling of the Church of the German Knights at Ramersdorf (*Fig. 410*), which, by the removal of the church to the cemetery of Bonn, have unfortunately been destroyed, and are only known through the excellent publication of E. aus'm Weerth. It appears also in churches on the Upper Rhine and Western Switzerland, at Gebweiler, Rosenweiler, and Weissenburg in Alsace, in the crypt of the Minster of Basle, etc. The graceful attitudes, the long and flowing draperies, the senti-

mental inclination of the heads, and the somewhat affected expression, clearly betray the influence of France. This style of painting was most successfully practised in Cologne, where legendary representations from the lives of St. Peter and Pope Sylvester have been preserved on the choir screen of the Cathedral, dating from the first half of the fourteenth century. In the last half of the same century the name of an artist appears, William of Cologne, who executed mural paintings in St. Cunibert, in the New Hall, and in the Town-hall. He is probably identical with the Master William mentioned in the Chronicle of Limburg, of the year 1380, as the best portrait-painter of Christendom, possibly also with the William of Herle near Limburg, whose name occurs in the official records of Cologne between 1358 and 1378. No specimens of his art can be positively authenticated, but, judging from the general character of the paintings of this time, it may be assumed that he also followed, more or less closely, the French methods.

In the German provinces more remote from the influence of France the productions were essentially different. Among these the extensive paintings in the Church of Oberwinterthur in Switzerland are as important examples of the art of their time as are those in Oberzell of that of the Romanic epoch. The series of pictures which once covered the walls of the nave, illustrating the youth of Christ and the legend of St. Arbogast, show few of the limitations of the preceding period, but the greater freedom is not accompanied by any corresponding progress in artistic respects. The mural paintings in the Church of St. Afra at Schelklingen in Wurtemberg, which have but lately been discovered, are still more inferior (*Fig. 411*). The naïve dilettantism of the contemporary German miniatures is here seen free from all French refinements. The compositions are rude and awkward, but vivid and original, the sound observation of nature evident in them being far more pleasing than the debased conventionalism of the former hieratic style. The rigid dignity of the earlier works is entirely lost, but this is outweighed by the straightforward and good-natured simplicity.

That this rudeness was not merely intended to engage the attention of the common people in country churches is proved by the

contemporary representations of secular and poetical subjects, which were as much in vogue in the castles of Germany as in those of England. The most interesting of such scenes from the poets would be those in the Castle of Runkelstein, near Botzen in the Tyrol, were it not for their bad state of preservation. This series is of the greatest variety, not only in the groups of classic, Jewish, and Christian heroes and lovers, but in the romantic scenes from *Tristan*, *Garel*, etc. Similar paintings are also to be seen in the Ehinger Hof of Ulm.

In view of such works as these, it is not strange that the cultivated Emperor Charles IV.,—who had been educated at the French



Fig. 411.—The Adoration of the Magi. Wall Painting in the Choir of the Church of St. Afra, Schelklingen, Wurtemberg.

court, and had married the sister of King Philip VI., Blanche of Valois,—could not be altogether satisfied with an art so unskilled. It is characteristic of his cultured taste, and of the circumstances of the time, that for the monumental paintings of his buildings, erected by French architects, he called artists from Italy rather than from France. The large mosaic of the portal of the southern transept of the Cathedral at Prague, referable to the year 1371, seems to be of Venetian workmanship. Tommaso da Mutina was doubtless also intrusted with monumental tasks, although the only authenticated works by his hand are panel paintings (*Fig. 409*). His influence is recognizable in the Giottesque mural decorations of the Chapel of

St. Catherine at Karlstein, and in those of the Cloister of Emaus. Charles IV., however, seems himself to have ascertained that his choice was not altogether satisfactory, as he turned his attention from Italy to Strasburg, in which town there flourished, until late into the fifteenth century, an eminently successful school of mural painting. Thus Nicolaus, called Wurmser, of Strasburg, to whom the paintings in the Church of the Virgin at Prague are, without doubt, referable, entirely supplanted the influence of the Giottesque Italian art in Bohemia.

After the end of the fourteenth century mural paintings became more and more rare. The small number of the works of this kind



Fig. 412.—The Dance of Death. Scene from the Mural Paintings in the Church of the Virgin, Berlin.

which have been preserved, and the entire lack of contemporary description, render it impossible to judge of their artistic merit. It appears that in extent and style they corresponded to the panel paintings of the period, from which they can have differed only in greater rudeness and hastiness of execution. In those districts where brick architecture was universal the stuccoed surfaces of the walls gave opportunity for more extensive representations in color, and even for cyclical scenes with many figures, such as the Dance of Death in the Church of the Virgin at Berlin (*Fig. 412*).

As the demand for mural decoration decreased, that for stained

glass increased. Until the close of the thirteenth century Romanic features were retained in this branch of art, especially in the ornamental portions. The combination of those elements with others derived from the works of the early French Gothic, particularly those of Chartres and Bourges, admits of no doubt concerning the dependence of Germany upon French models. In the fourteenth century, however, the Germans surpassed their neighbors even in glass painting. The progress was first shown in the consequential employment of Gothic architectural details; a truly pictorial effect of perspective and of light and shade was not attempted, regard being paid rather to the flat and tapestry-like character befitting painted windows. The new system was in marked contrast to that previously obtaining, in which the windows had been divided into circular, almond-shaped, and segmental compartments. It appears in great perfection in the cathedrals of Strasburg, Freiburg, and Cologne, and in numerous ecclesiastical edifices of the fourteenth century (*Fig. 413*). The superiority of German productions does not consist merely in the architectural memberment, but in the greatly improved coloring. This resulted particularly from the extended use of white and yellow, which had been too scantily employed by the French, the superabundance of red, deep-blue, and purple in their works being often offensive. On the other hand, the Germans sometimes made the contrary mistake of favoring broken tones in order to attain an effect of *chiaroscuro*, which in glass painting is as inadmissible as a perspective treatment. The mosaic and tapestry-like character is seen at its best when the composition is made up of details so small that the beholder from a distance has only the impression of harmoniously blended colors without distinguishing objects; the ecclesiastical effect is as little impaired by this indistinctness as it is by the failure to understand the words of a choral. The finest productions of this kind are the windows in the choir of the Cathedral of Ratisbon, a minute study of which might have prevented many an error in the glass painting of the present century,—notably that of attempting the representation of subjects of great extent.

Textile industry, especially embroidery, continued of subordinate importance. Tapestries intended for dorsels, coverings for

seats, canopies, etc., were made for the dwellings of nobles rather than for the churches, and represented amorous subjects for the chambers of the women, hunting scenes for the other rooms. Embroidered garments were chiefly employed for liturgical purposes, as priestly robes, etc. In all these, and in the embroidered altar hangings and screens, the style remained, until the end of the fourteenth century, the same as in the Romanic period: a greater or



Fig. 413.—Glass Paintings from Königsfelden, Switzerland.

less degree of dilettantism in treatment and subject being combined with Arabian, or rather Sicilian, methods and forms. It is doubtful whether the works of Germany in this branch ever equalled those produced in the Netherlands after the Burgundian supremacy. The dorsels were at times merely painted in tempera colors upon canvas, while the hangings of the lower walls were imitated in mural paintings.

The panel painting of Germany did not attain to a more extensive employment, and to a higher artistic importance, until a comparatively late period. Even after the *superfrontalia* had become of greater prominence than the chalice shrines and the bases of reliquaries, the ornaments of the altar were commonly sculptured, painted altar-pieces being rare in the Romanic epoch. The few German panel paintings dating from the first half of the fourteenth century are extremely archaic, the figures being lean and ascetic: instance the earliest pictures of the school of Cologne, preserved in

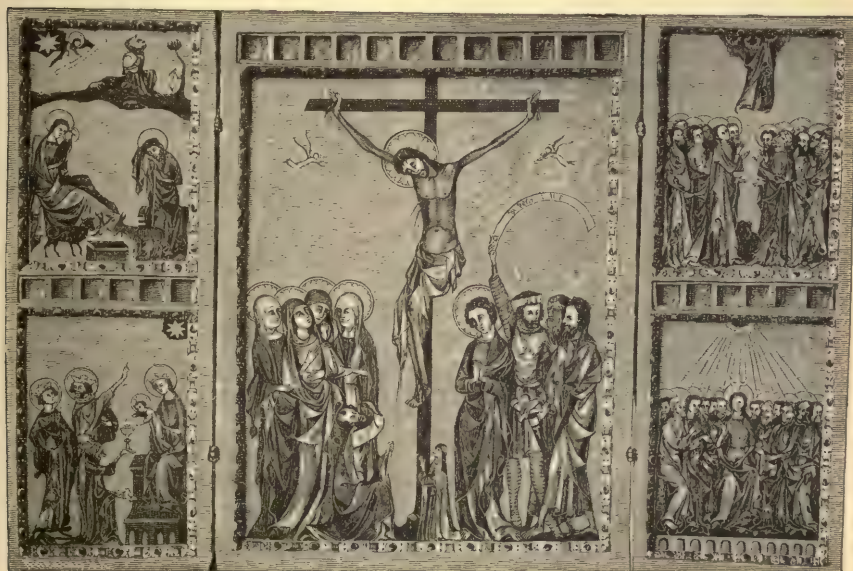


Fig. 414.—Early Cologne Triptych. Museum of Cologne.

the Richartz-Wallraf Museum of that city (*Fig. 414*). Although in the positions and draperies some concessions were made to the ideals of the Gothic style, they followed in the main Byzantine and Romanic types. Cyclical representations do not appear before the middle of the fourteenth century, at which time the Emperor Charles IV. established a school of panel painting in Prague. The employment of Italian, French, and German artists side by side in the Bohemian capital naturally exercised great influence upon this branch; still, it cannot be asserted that the combination of elements so dis-

similar was altogether advantageous to the art of Prague. Charles IV. did not succeed, like the Burgundian dukes, in attracting to his court the best masters of the time; and, moreover, Tommaso da Mutina and Nicolas of Strasburg seem to have devoted but little attention to panel painting. The chief representative of the school of Prague is Master Dietrich, to whom are ascribed the pictures in the Chapel of the Holy Cross at Karlstein, showing one hundred and thirty-three half-figures of saints, in two and three rows, one above another, upon backgrounds patterned in gold. Although the

forms are heavy and rude, the heads and gestures are expressive and characteristic. The entire lack of courtly elegance renders any influence of France improbable, the conception being more akin to that of the art of Northern Germany.



Fig. 415.—The Presentation in the Temple. Panel Painting of Cologne, dating from the middle of the Fourteenth Century. Museum of Cologne.

A striking contrast to these works is presented by those of Cologne, referable to the second half of the fourteenth century. The advance in mural decoration, made in the Rhenish provinces in the time of Master William, was followed by a corresponding progress in panel painting. Even early and immature works of this period (*Fig. 415*) differ essentially from those of Dietrich

of Prague, which are characterized by rawboned and heavy forms. Towards the close of the fourteenth century, however, the figures became even more delicate, small, slender, and boneless, with narrow hips. Strong and masculine features were prevalent in the style of Bohemia; feminine and nun-like in that of Cologne. It was doubtless the type of the patrician maiden, in the town of St. Ursula and her ten thousand virgins, which inspired the artists to paint heads with fair hair and large foreheads, with modest, half-closed eyes, delicate noses, and pretty lips; while the young men of refined society served as models for the almost puerile figures of such knightly

saints as Gereon and Maurice. With all its lack of strength, its exaggeration, and even mannerism, this type of Cologne is scarcely less attractive than is that which similarly appears in the art of Siena. The master of delicate sentiment to whom the altar of St. Clara in the Cathedral of Cologne is to be ascribed may be compared to Duccio; and there is an unmistakable resemblance between Simone di Martino and the artist of St. Veronica, in the Pinakothek of Munich, of the Madonna with the bean-blossom, in the Germanic Museum of Nuremberg, and that of the Wallraf Museum of Cologne (*Fig.* 398), who has been identified, upon insufficient grounds, with the Master William of the Chronicle of Limburg. This likeness does not extend to the coloring. The paintings of Cologne are in nowise connected with mural decoration, but rather show a dependence upon stained glass in the selection and the transparency of the colors; sometimes even in the arrangement of the composition, as in the Heisterbach Altar, in Munich.

A high degree of uniformity and affectation would inevitably have resulted, had not the realistic and individual style of the Netherlands exercised an invigorating influence upon that of Cologne. Traces of this influence are unmistakable in the famous altar-piece in the Cathedral of Cologne, which was painted between 1430 and 1440 for the chapel of the Town-hall, and marks the highest perfection attained by this school in the Middle Ages. This celebrated triptych, representing the Adoration of the Magi, was admired by Albert Dürer, and it is through an entry in his journal that the name of the artist is known,—Master Stephen, probably Stephen Lochner of Constance, who died in 1451 as a magistrate of Cologne. The master adhered to the traditions of the school in the ideal type of the Madonna and in the gold background; but something of the Flemish fineness of execution is evident in the male figures, in the costumes and details, while, in technical respects, the new method and the coloring of the brothers Van Eyck is adopted without reserve. The influence of the Netherlands is less prominent in such works as the beautiful Madonna in the Rose Garden (*Fig.* 416), where the Virgin is surrounded only by angels,—without the retinue of saints, the treatment of whose figures required greater realism. In works of this kind, where the subject is so entirely in harmony with

the character of the art of Cologne, the limitations of the school are less manifest. They are, however, fully felt in a Last Judgment in the same museum, which should be ascribed to an artist closely connected with Master Stephen. This picture contrasts most unfavorably with the compositions of Van Eyck.

It was only after the influence of the Netherlands had become



Fig. 416.—The Madonna in the Rose Garden. Panel Painting of Master Stephen in the Museum of Cologne.

more prevalent that the artists of Cologne could successfully undertake the representation of legends while preserving in some measure their ideal tendencies. The advance is first evident in the cyclical scenes from the life of the Virgin, in the Pinakothek of Munich, without doubt the best production of the so-called master of the

Lyversberg Passion. The Rhenish countries at this time seem to have been influenced by Dutch rather than Flemish art, the methods of the Master of Lyversberg showing greater resemblance to those of Dierick Bouts than to those of Van Eyck and Rogier. This applies also to the other Rhenish and Westphalian masters, whose names are not known, but who are designated by the subjects of their chief pictures, or by the places where these were found. Among them are the Master of Liesborn, whose chief work is in the National Gallery of London; the Master of the Holy Companionship, of St. Severinus, of St. Bartholomew, and others. Their principal productions are to be seen in Cologne and Munich. Although they all betray the training of Cologne, they so differ one from the other that the artistic individuality of each admits of no doubt. Some of these works may be as late as the beginning of the sixteenth century, but, until the beautiful productions of the master of the Death of the Virgin, none can be attributed to the period of the Renaissance.

The school of Franconia, notably that of Nuremberg, occupies the third place in the history of German panel painting. The chief altar-piece of the Church of Our Lady of Nuremberg, now placed above the left side altar, apparently dates from the time of the completion of the building itself, that is to say, from the end of the fourteenth century. It is a fine triptych with patterned gold ground, and figures of saints in either wing, and displays the rude and vigorous style of the Bohemian school, founded by Charles IV., fully as much as it does Rhenish methods. Indeed, all the paintings of Southern Germany, referable to the first years of the fifteenth century, hold a middle place between the somewhat coarse characterization of the art of Prague and the sentimental idealism of that of Cologne. Among the most important of them is the Imhof Altar in the Church of St. Laurence at Nuremberg, the middle picture of which is a Coronation of the Virgin. This work seems, from the heraldic devices, to have been painted shortly before 1422. In it, as in the triptych in the Church of Our Lady, there is but slight evidence of the influence of stained glass upon the coloring, so noticeable in Cologne; the pigments are dark and of a brownish tone. The forms, on the other hand, have gained in grace and beauty. There are but few indications of those wrinkled and angular folds

of the garments which are so characteristic of the art of Nuremberg after the fifteenth century; the draperies, though flowing, have something the appearance of sheet-metal, like those of Cologne, from which latter the works of Franconia differ chiefly in a certain rudeness and harshness, and in a preference for rawboned and almost vulgar figures. After the middle of the fifteenth century the forms in the paintings of Nuremberg gradually became more noble, as is evident, for instance, in the picture above the tomb of Margaretha Imhof (d. 1449), in the Church of St. Laurence, which is still closely related to the Imhof Altar. It is doubtful whether the artist modelled his work upon the paintings of Cologne or those of the Netherlands. It would be more natural to assume the influence of the former than of the latter, as the journeymen of the Painters' Guild, through their wanderings, were more frequently brought into contact with the artists of the Rhenish countries than with those of Flanders.

The name of only one artist of this period is known, Hans Pleydenwurff (d. 1472). His renown early extended beyond the limits of his native province; in 1462 he received the order to paint an altar-piece for the Church of St. Elisabeth at Breslau, which unfortunately no longer exists. It appears impossible to ascribe to him the picture above the tomb of Margaretha Imhof, but it is not improbable that some of his works are among the numerous paintings generally ascribed to Michael Wolgemut. This latter artist, A. D. 1434 to 1519, is to be considered as the chief representative of the school of Pleydenwurff, whose widow he married in 1473. He worked together with his step-son William, and continued the methods of his predecessor.

In the school of Pleydenwurff and Wolgemut was developed the strong and marked style already referred to as resulting from the influence of the wood-carvings of Franconia, and as being particularly noticeable in the wrinkled and puffed draperies. The bony and angular forms, the entire lack of feeling for beauty, the hard lines of the heads, hands, and feet, which had prevailed in the art of Nuremberg in the beginning of the fifteenth century, still continued, but there was a decided advance in characterization, individuality, expression, and, especially, in coloring. This style is so

pronounced, even in the earliest dated works of Wolgemut,—the four panels of the Church of the Holy Trinity at Hof, A. D. 1465, now in the Pinakothek of Munich (*Fig. 417*),—that it must have been adopted by him from Pleydenwurff. Hans Traut, the third great painter of Nuremberg in the second half of the fifteenth century, evidently had the same training. The only work which can with certainty be attributed to him is a drawing of St. Sebastian, now in the collection of the University of Erlangen. It must be acknowledged that Wolgemut, whose talent was greater than that of his contemporaries, in some measure freed himself from the mechanical art of his time, as is evident from the Peringsdoerffer Altar in the Church of the Augustines at Nuremberg, now in the Germanic Museum of that city. In the ordinary pictures of his school, however, the work of his hand is not always to be distinguished from that of the Pleydenwurffs, father and son, especially as he, like his predecessor, had a great number of assistants, whose help was rendered necessary by the extent of the altar-pieces, instance that of Zwickau: his name thus being often nothing more than the stamp of the firm. This is the case with the high-altar of the parish church of Schwabach, completed in 1508, which is recorded as his, but shows very little of his own work.

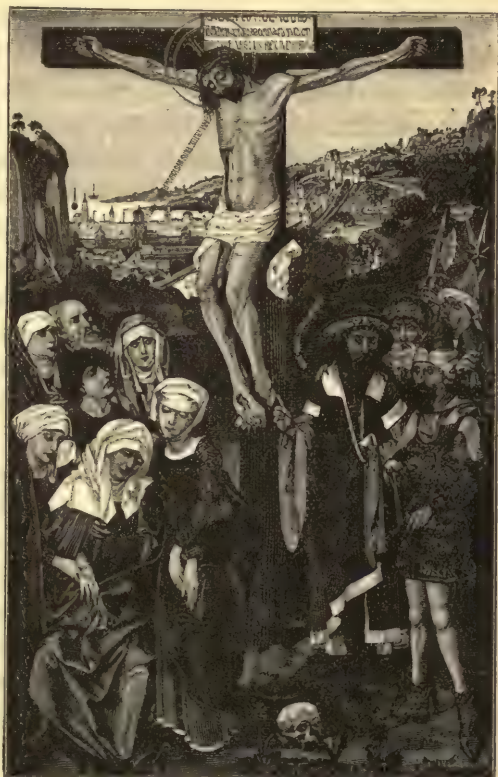


Fig. 417.—The Crucifixion. Panel Painting by Wolgemut, for the Church of the Holy Trinity at Hof.

The common assumption, that Nuremberg was considerably influenced by the Netherlands, appears unwarranted. Wolgemut, it is true, was acquainted with the methods of oil-painting, and a certain degree of intercourse, through journeymen, with the Rhenish countries must have led to the adoption of many Dutch innovations. But this influence was not direct, and was of much less importance than in Suabia. It is hence futile to inquire from which particular school of the Netherlands it may have proceeded.

The panel painting of Suabia was not, like that of Nuremberg, the monopoly of a single school. In the fourteenth century it was but little practised, and in the fifteenth was almost entirely restricted to the altar-pieces, which, in their combination of painting and wood-carving, provided the principal employment for the artists of that time. The name of Lucas Moser, of Stadt Weil in Wurtemberg, is attached to the altar-piece of St. Magdalen in the Church of Tiefenbronn near Pforzheim, which was executed at least as early as 1431. The series of representations from the lives of the Magdalen and Lazarus show no Flemish influence; this applies also to the Staufenberg Altar in the Museum of Colmar, which cannot be earlier than 1450, and in awkwardness and want of artistic merit differs little from the work of Moser. Certain influences of the Lower Rhine are noticeable in the pictures which once formed the altar-piece of the Church of St. Martin at Colmar, painted after 1462 by Caspar Isenmann of Colmar,—if indeed the seven panels with scenes from the Passion, dated 1465, in the museum of that town, are to be considered as belonging to this work.

The direct influence of the Lower Rhine and of Brabant first appears in another master of Colmar, Martin Schongauer, who was of an Augsburg family, and died in the prime of life at Colmar, A. D. 1488. There is no better authority than Vasari for stating that he was a pupil of Rogier, but it is certain that his style is related to that of the school of Brabant. Of this, however, he was far more independent than his contemporary, Friedrich Herlin of Noerdlingen, as he exhibited also some characteristics of the school of Cologne. These latter appear in the beautiful Madonna in the Rose Garden, A. D. 1473, in the sacristy of S. Martin at Colmar, which, with great probability, though not with absolute certainty,

is ascribed to Schongauer. None of the panel paintings of Schongauer, however, are fully authenticated; thus, he must be judged chiefly by his signed engravings, which will subsequently be referred to. It must suffice to observe, in this connection, that in carefulness of design and execution, in correctness of drawing and of composition, he surpassed all his contemporaries.

There were no close relations between the school of Ulm and that of Colmar. In the year 1469, when Hans Schuechlin of Ulm completed the paintings of the high-altar at Tiefenbronn, Schongauer was very young, perhaps still a journeyman; if, therefore, any connection be assumed, it must rather have existed between Hans Schuechlin and Lucas Moser of Weil. The style of Schuechlin, and that of his talented pupil, Bartholomew Zeitblom of Ulm, who worked between 1484 and 1517, differs more from that of the Netherlands, being simpler and more essentially German than that of the cosmopolitan Schongauer. The quiet and serious dignity of the figures of Zeitblom, and especially of the feminine heads, their expression of sincere piety and unapproachable matronly chastity, render his works the noblest creations of contemporary German art. These characteristics are seen in the altar-piece of Hausen, dating from 1488, and in the altar of the Church of Heerberge, signed 1497, both in the collection of antiquities at Stuttgart; further, in two female saints on the panels of a triptych in the Pinakothek of Munich. The artist, however, was only able to represent attitudes of repose: in dramatic scenes, such as those of St. Valentin at Augsburg (*Fig. 418*), he is rigid and lifeless.

From its centre at Ulm, Suabian art extended to different directions. One branch is found in Eastern Suabia, especially in Memmingen, where we meet with Bernhard Strigel, a master of great ability and productiveness, though occasionally somewhat mechanical. A number of his works have lately been identified by W. Bode and R. Vischer. Towards the east the school of Ulm was extended to Augsburg. The paintings executed in this town before the end of the fifteenth century had been of but little merit: instance the ceiling of the Guildhall of the Weavers, referable to Peter Kaltenhof, now in the National Museum of Munich, and the representation of Christ between the two Thieves, dating from 1477, now in the Gal-

lery of Augsburg. There was no master of great ability before Hans Holbein the elder, whose earliest known work is the Weingarten Altar, painted after 1493, fragments of which are preserved in



Fig. 418.—St. Valentin before the Emperor. Panel Painting by B. Zeitblom in the Gallery of Augsburg.

the Cathedral of Augsburg. From this, from the altar of Kaisheim, dated 1502, in the Pinakothek of Munich, from the basilica pictures

of 1499 and 1504 in Augsburg, and from various others in that town and in Nuremberg and Schleissheim, we become acquainted with a master as representative of the school of Augsburg as was the somewhat older Wolgemut of that of Franconia. Holbein, though possessing a higher sense of beauty and grace of form, and giving to his heads a character of great individuality, amounting at times even to a humorous caricature, did not so readily obtain recognition and pecuniary success as Wolgemut, and struggled, with unfavorable circumstances, until his death, in 1524, notwithstanding the frequent assistance rendered him by his brother Sigmund and by his son. In one respect, however, Holbein and Wolgemut were alike, each having the good-fortune to be the first instructor of one of the two greatest artists of the German renaissance: Wolgemut of Albert Dürer,—Holbein of his son, Hans Holbein the younger.

Holding a middle place between the schools of Suabia and Franconia, we find a master who imitated the methods of the Netherlands in a greater degree, and, as it appears, at an earlier date than any of his German contemporaries. This was Friedrich Herlin of Noerdlingen. It is not definitely known whether he is to be identified with the painter Herlin, mentioned in the chronicles of Ulm about the year 1450, but it is certain that his style has but little in common with that of Schuechlin and Zeitblom. Nor does he seem to have been at all dependent upon Schongauer, as he was older, and consequently had received his training at an earlier period. The high-altar of the Church of St. George at Noerdlingen of 1462 may almost with absolute certainty be attributed to him, while that of the Church of St. James at Rothenburg on the Tauber, dated 1466, is signed with his name. In the year of Schongauer's death, A. D. 1488, Herlin painted the triptych dedicated by himself, the centre picture being a Madonna. Many of the types in this work are so closely imitated from those of Rogier that a thorough acquaintance with them is not to be doubted. Hence Herlin cannot, in originality, be compared to Schongauer, Zeitblom, or Hans Holbein the elder, but in technical ability he is inferior to none of his contemporaries.

The panel painting of Bavaria, in the fifteenth century, is more

closely related to that of Suabia than to that of Franconia. The works of this school are chiefly preserved in the Gallery of Schleissheim and in the National Museum of Munich. In the hasty and disorderly collection which followed the secularization of the convents in 1803, the derivation of but few of the pictures was recorded, and those still remaining in the country churches have not yet been examined with sufficient thoroughness. A correct estimate of them is thus impossible. In regard to the works and ability of Ulrich Fuetterer of Landshut, of Gabriel Maechselkircher and Hans Olmdorf of Munich, there is as yet no reliable information. Judging, however, from the general character of the Bavarian painting of that time, no signal importance can be ascribed to these artists.

The productions of Austria are also similar to those of Suabia. In the main, the style obtaining in the territories north of the Alps, from Burgundy to Hungary, after the middle of the fifteenth century, shows a striking similarity, differing both from that of Giotto and that of the Lower Rhine and Flanders. In point of style and in technical respects the influences of the Netherlands and of Italy occasionally appeared; but such instances were rare, and did not materially alter the general character. Moreover, the extremes of Northern and Southern Germany were differently affected by these influences. The natural division formed by the Alps was of decisive effect even in painting, and the artistic methods of Italy extended beyond the districts where the language of that country was spoken. The Tyrolese, on the southern slope of the Alps at least, were more frequently trained in the schools of Upper Italy than in those of Southern Germany; when German methods appear, they are so intermingled with the Italian that even the changes in style, from Giotto to Mantegna, can be traced in the Tyrolese paintings. In the North German Lowlands, on the other hand, there was no activity in panel painting before the beginning of the sixteenth century, the demand being chiefly supplied by importations from Franconia, Holland, and Westphalia.

It is plain that in independence, significance, and extent of activity the panel painting of Germany, during the Gothic epoch, surpassed that of the rest of Europe, with the exception of the Netherlands. In illumination, however, Germany was inferior to

France. Rude pen drawings with slight coloring,—such as were common during the Romanic period in the codices of the convents rather than in those of the courts,—prevailed during the thirteenth and fourteenth centuries. Excellent examples are presented by the manuscript of Wolfram von Eschenbach's *Parceval*, and by that of Gottfried von Strasburg's *Tristan*, both in the Library of Munich. After the fourteenth century attempts were made to imitate the fine colors of the French gouache paintings, but the elegant rendering, the tasteful arrangement, and decorative effect of the originals were never attained. Gold and patterned backgrounds were given up. The compositions were designed solely with reference to an intelligible expression of the idea, and to the character and forcibleness of the action,—beauty of form being rare. Even in the miniature painting of Prague, where the Emperor Charles IV. and his wife, the French princess, may have furthered the adoption of the methods of the Paris school of illumination, French influences did not predominate. Some of the characteristics of Italian painting are, however, to be observed (compare *Fig. 419*). It may have been owing to these influences, both of France and Italy, that the artistic activity of Bohemia at that time was increased, and that the execution became more careful. A delight in novel subjects is also noticeable; in the drolleries of the age of Wenzel these were often coarse and sensual.

The miniature painting of the Austrian court, although less productive, was not essentially different. Germany, on the whole, continued inferior, good results being attained only in the Rhenish countries, where the advance in the panel painting of Cologne necessarily had an effect upon the art of illumination. Berthold Furtmeyer of Ratisbon (d. after 1501) was an important artist, unconnected with any school; he is not, however, to be compared to Fouquet. The influence of the Netherlands was less felt in Germany than in France. The slight attention devoted by the Germans to miniature painting may have been in great measure due to the progress made in printing, in the second half of the fifteenth century, through the Rhenish invention which lessened the demand for written manuscripts.

The inferiority of Germany in this branch, however, was more

than outbalanced by the important advance early made in the arts of reproduction,—the finest result of German illumination.* Some time before Gutenberg gave to the world the art of typography, which superseded the writing of manuscripts, the printing of pictures from wood-cuts had been developed from pen-drawing. The beginning seems to have been made in the printing of stuffs by a



Fig. 419.—The Annunciation. Miniature from the Breviary of the Archbishop Ernst of Prague. Bohemian Museum of that Town.

kind of stamp, first in the repetition of a small pattern, and later in the representations of figures, as a substitute for embroidery in one

* T. O. Weigel und A. Zestermann, *Die Anfänge der Druckkunst in Schrift und Bild*. Leipzig, 1866.—F. Lippmann, *Ueber die Anfänge der Formschneidekunst und des Bild-druckes*. Repertorium für Kunstwissenschaft I. Stuttgart, 1876. — R. Muther, *Deutsche Bücherillustration der Gothik und Frührenaissance*. München, 1884.

or more colors. The printed linen tapestry of Sitten, probably of Italian workmanship, appears to be as early as the fourteenth century; impressions in black upon paper, however, are not attested before the beginning of the fifteenth. These latter were chiefly produced in Ulm, and were much in vogue throughout Germany during the sixteenth century. The effect was heightened by filling in the rude outlines with local tones, this being often done with a stencil. The pictures were mostly figures of saints, occasionally with short texts cut upon the same block, from which latter the artisans who did this kind of work were called *Brefmaler*, or letterers. These pictures often formed extended series, printed partly upon loose sheets,—such as the playing-cards which, in Germany, have retained something of the primitive style down to the present day,—or in books, as, for instance, “Der Heilsspiegel,” “Die Kunst zu Sterben,” “The Apocalypse,” “The Dance of Death,” etc. From these block books, with a gradually increasing text, the art of printing with movable types was developed. After this invention the woodcut gained in importance and excellence, although retaining its mediæval character even beyond the Gothic epoch.

The progress in copper engraving was more rapid. This art is closely connected with metal work, especially niello. Every engraved plate, the hollows of which were filled in with color instead of enamel, was capable of giving an impression. This was probably often tried, simply as a proof, before a reproduction was thought of, and before the plate, like the block of wood, came to be considered only as a means. The oldest known date of a copper engraving, 1446, is found upon a representation of the Scourging of Christ, from a series of scenes from the Passion; the next following dates are 1451, 1464, 1466. In connection with the last of these occurs the first monogram, E. S. The style of these works is that of the Rhenish countries and Suabia, in which latter district we meet with the earliest known engraver, Martin Schongauer, the most important of the fifteenth century. His influence was greater in engraving than in painting, his methods in the former branch being followed not only by his brother Ludwig and the artist B. S., but by the most prominent engravers of Westphalia and the Netherlands, Franz Bocholt and Israel von Meckenlen. In the East, Schon-

gauer's style was adopted by Wenzel of Olmuetz. His engravings were also used by many painters, and were carried as far as Italy, where they were studied and copied even by the artists of the Renaissance. Through Schongauer the art of copper engraving found its first decided development, and even painting was influenced by his prints.

Wood-cutting and engraving upon metal became of the same importance for art as printing for literature. The designs of the artist were thus brought into the hands of private individuals, even as the possession of books was extended beyond the libraries of courts and convents. In the development of these methods of reproduction the initiative is to be ascribed to the closing period of German mediæval art, and the importance of these is not diminished by the poor results which could be attained during the last decades of the Middle Ages.

THE NETHERLANDS.

Among the countries of the North, the first position in the painting of the Middle Ages should be assigned to the Netherlands. Panel painting was as pre-eminent in Flanders as was monumental painting in Italy, in which latter branch the predecessors of Rubens were inferior even to the artists of Germany. The cramped circumstances of the political and social organization led to the development of a fine and miniature-like painting upon panels. The mural decorations of the Netherlands at this period are scarcely worthy of mention. The representation of three living and three dead figures in the Church of Zalt-Bommel (Guelders) is of but slight artistic importance, and is, moreover, without novelty, as the subject had frequently been treated in the wall paintings and miniatures of England,—not to speak of the infinitely superior Triumph of Death in the Campo Santo at Pisa. Before the sixteenth century there were in glass painting no indications of that independence and artistic excellence which characterize the fine Renaissance windows of the Cathedral of Ste. Gudule at Brussels. Better results were attained in the textile arts by Burgundy and the Netherlands, but even these did not become of higher significance until the fifteenth century. The liturgical garments preserved in the Ambras collection of Vi-

enna are of the earlier period. These hand embroideries, however, are of less interest than the stuffs woven in colored figures in imitation of the technical methods of the Orient. Such woven tapestries were chiefly produced in Flanders, and Arras,—the centre of this industry until the end of the fifteenth century, when it was surpassed by Brussels,—gave to such hangings the widely known name *Arazzi*. The finest tapestries of the kind, referable to the period in question, are those formerly in possession of the ruling family of Burgundy, now preserved in the Library of Berne and the Museum of Nancy. Of somewhat later date are the Gobelin tapestries in the Palace of Madrid representing the legend of the Virgin; compared with the before-mentioned, these exhibit the same artistic decadence as that evident in the paintings of the Netherlands after the death of Memling.

The most important branch of art in the Netherlands, during the fifteenth century, was panel painting. In determining its origin it is first necessary to rectify the exaggerated estimate commonly held in regard to the altar of the Carthusian Convent of Dijon, painted, shortly before 1400, by Melchior Broederlam of Ypres, and now preserved in the museum of Dijon. These paintings have been unduly praised; they are little better than the contemporary productions of the Rhenish countries, and are decidedly inferior to the panel pictures ascribed to Master William. In artistic importance they are not to be compared to the sculptures of Sluter in Dijon, and scarcely equal the wood-carvings of James de Baerse upon the same altar. Broederlam in nowise deserves to be called the forerunner of Van Eyck and Rogier, although it may be assumed that in panel painting he attained to the highest standard of the Netherlands in the fourteenth century. This branch of art seems to have been but little favored at that period. Much may, indeed, have been lost through the destruction of Iconoclasts and the neglect of later ages; still, this does not sufficiently explain the great scarcity of paintings referable to that time. When, in the year 1385, the dukes of Burgundy came into possession of a part of these territories, they devoted their chief attention to illuminated manuscripts, furthering panel painting only in so far as it was connected with that of miniatures.

It is hence vain to search for any direct predecessors of the great

painters of the fifteenth century; we can only assume them to have been influenced by such illuminators as those employed at the French courts. The school of Tournay, which is only known from its sculptures, may also have had an effect upon the development of these painters; the founder of the school of Brabant, at least, was trained at Tournay. Nothing further than the name of the master of Rogier is known: Robert Campin, a contemporary of Broederlam, and probably superior to the latter. Certain it is that the improvements of the new school, in the employment of pigments, in drawing, in the direct study of nature, in linear and ærial perspective, were not effected before the fifteenth century.

The first to make this advance were the brothers Hubert and Jan van Eyck, so called from their home, Maaseyck, near Maestricht. Concerning the circumstances of their lives, it is only known that Hubert, the older of the two, lived in Ghent about 1424, where he died in 1426; while Jan, between 1422 and 1424, was in the Hague, in the service of Duke John of Bavaria, the last German ruler of Luxemburg, Brabant, and Holland. Jan was afterwards in the employment of Philip the Good of Burgundy, living in Lille until 1428, when he was sent by his patron to Portugal, remaining in that country until the close of the year 1429. Between 1430 and 1432 he was in Ghent, and finally in Bruges, where he died in 1440.

The older historians of the growth of painting have dwelt chiefly on the innovation introduced by the brothers Van Eyck in substituting the employment of oil for that of tempera. But important as was the advantage obtained by the use of the new pigments, the significance of this method depended rather upon the fact that it presented the best means of obtaining the desired end. Oil colors were not, strictly speaking, invented by the Van Eycks, having been employed as early as the eleventh century, principally for house-painting and for decorating armor and banners, the greater durability of the medium having been fully recognized. A passage of Cennino proves that the deep and velvety effect of oil colors was also appreciated, and that they had previously been introduced into panel painting. The pigments of mediæval tempera also had this merit, as their glutinous mediums,—gelatine, white of egg, the juice of figs and grapes, etc.,—were capable of giving them a brilliancy

fully equal to that of oil colors, while the varnishes which had long been in use secured an effect of such depth that it is difficult to say, from the appearance of the colors alone, whether a picture is executed in tempera or in oil. The advantages of the latter process consisted rather in the mode of application. For while the pigments in tempera, as in gouache, dried so rapidly that their employment was only possible in surfaces of one tint, or in shading with fine lines, the slowly drying oil permitted a modelling by means of colors of different depth, these blending readily with the pigments fresh from the brush. In technical as well as in artistic respects a higher degree of perfection was thus obtained than at any previous period in the history of painting.

The innovators themselves profited by all the advantages which the new methods afforded. In fineness and clearness the execution reached a degree of perfection previously unknown even in miniature. The Van Eycks were not content with giving greater refinement to the typical style of their predecessors, but strove after a direct imitation of nature. Their merit depended upon this, no less than upon their improvements in technical respects. The genius of the brothers is evident in their exact and logical representation of effects of light and shade, as well as of linear and aerial perspective, and is perceived in the nude parts, the garments, in all the accessories, and even in the landscapes of the backgrounds. Although in certain details this excellence had been attained by artists of earlier ages, it may, upon the whole, be said that the work of the Van Eycks led from the conventional hieratic and decorative treatment to technical perfection,—from the mere coloring of an outline drawing to the true art of painting.

The oldest work of the two masters which is accurately dated is among the most important paintings of all time. This is the altarpiece of the Church of St. Bavo at Ghent, dedicated by Jost Vyd, a citizen of that town. It consisted of twelve panels, eight of which are painted upon both sides; the large central piece, still in its original place, represents in the lower compartment the Worship of the Lamb, and, above, God the Father between the Virgin and St. John (*Figs. 420 and 421*). The four wings of the lower part, which show upon their fronts the just judges, knights, hermits, and pilgrims

coming in troops to adore the Lamb,—together with two of the upper wings, representing angels making music,—are among the greatest treasures of the Gallery of Berlin. The outer upper panels, with the figures of Adam and Eve, are in the Museum of Brus-



Figs. 420 and 421.—The Virgin and St. John, from the Altar of the Brothers Van Eyck in the Church of St. Bavo at Ghent.

sels. In St. Bavo at Ghent the missing panels have been replaced by the corresponding parts of the excellent copy of the whole, made by M. Coxciën at the order of Philip II.

Hubert could only devote the last two years of his life to this work; he left it unfinished, and Jan, who was engaged elsewhere, did not complete it until 1432. The central group, which in ideal grandeur and beauty differs vastly from the works of Jan, can with reasonable certainty be attributed to Hubert; the angels singing and playing, and the chief portion of the worship of the Lamb, may also be referred to him. All the remainder is by Jan, including the back sides of the wings, representing the donor with his wife Elsbeth Burlut, the two St. Johns, painted gray in gray in imitation of stone sculptures, and the Annunciation, prophets and sibyls in the upper part. The works of Jan are decidedly more dry and less devotional, but his realism, both in subject and execution, is of a high degree of perfection. This applies particularly to the portraits of the donors and to the nude figures of Adam and Eve, which latter, in their truth to nature, were in after-times held to be objectionable, and removed from the church. Hubert, the idealist, was undoubtedly the greater master; Jan, the unmitigated realist, the better painter.

The ability of Jan is evident in his pictures of secular rather than in those of religious subjects. Notwithstanding the technical perfection, a certain prosaic character is unpleasantly felt in the Madonna of Canon van der Paele in the Academy of Bruges (*Fig. 422*), a repetition of which is in the Museum of Antwerp; the case is similar with the Madonna of Chancellor Rollin in the Louvre, and with the Madonnas of Antwerp, Dresden, Berlin, Paris, and Burleigh House. The want of beauty in the faces and of grace in the gestures, as well as the subordination of the ecclesiastical character to a portrait-like and *genre* style,—even the masterly representation of the accessories as in a still-life,—give to these works the stamp of cabinet pieces rather than of devotional pictures. Jan's Head of Christ, referable to the year 1438, now in the Museum of Berlin, is in sentiment vastly inferior to the types portrayed by Hubert in the altar of Ghent. The more perfect, on the other hand, are Jan's portraits, particularly when somewhat genre-like in conception. The finest of all the works of this kind, dating from the fifteenth century, and one of the greatest masterpieces of all ages, is the portrait of Giovanni Arnolfini of Lucca, and his wife Jeanne de Chenany, painted in 1434, now in the National Gallery of London. The life-like

character of these unattractive personages, portrayed with a more than photographic truth to nature, is not even the chief merit of the work: finer still is the representation of the interior and all the accessories, which, in delicacy and clearness, has not been surpassed before or since, and in fine effects of light and color was unequalled until the time of Pieter de Hooghe.



Fig. 422.—Madonna of Canon van der Paele, by Jan van Eyck. Academy of Bruges.

It is not strange that in the fifteenth century opinion was undecided in regard to the relative greatness of the two brothers, and that the preference was often given to Jan, who, owing to his longer life, accomplished more, and was able to establish a school. Still, among those supposed to have been his pupils, only one is well known, Petrus Cristus of Bruges, who, like Jan van Eyck, usually signed his pictures. His best works are his portraits; these, however, are not equal to those of Jan. Chief among them is that dated

1449, in the Oppenheim Collection at Cologne, representing a bridal couple who are buying their wedding-rings of the goldsmith St. Eligius. This is a peculiar mixture of portraiture and of genre-like religious art, which, from the elaboration of the accessories,—as, for instance, the jewellery exposed for sale,—has in great measure the character of a still-life. If the artistic treatment of landscape backgrounds first appeared in the altar of Ghent, and that of interiors in the portrait of Arnolfini by Jan van Eyck, the genre and still-life painting of the Netherlands had its forerunner in this picture of St. Eligius by Petrus Cristus.

No picture can be ascribed with certainty to Gerard van der Meire of Ghent, although it is possible that some of his works may be among those in the Gallery of Madrid generally attributed to the Van Eycks. Another master of Ghent, Hugo van der Goes, is better known from the story of his life,—he having died insane, A. D. 1482, in the Rooden Clooster near Soignies, which he had entered as a painter of great renown,—than by the single picture referable with certainty to his hand: the Nativity, which Tommaso Portinari dedicated in the Hospital of S. Maria Nuova at Florence, this work being somewhat dry in composition and color. A third artist of Ghent, Jost van Gent, was employed in Italy at the court of Duke Federigo of Urbino, where he painted the Institution of the Last Supper, now in the Academy of that town.

In the age of these last-named artists, however, the style of the Van Eycks was not the only one in the Netherlands, and the art of that country was not entirely dependent upon their models. The Flemish school of Ghent and Bruges was rivalled by that of Brabant, which originated in Tournay, an old and celebrated centre of art. In 1426, the year in which Hubert van Eyck died, Rogier van der Weyden entered the school of Robert Campin,—a painter otherwise unknown,—and six years later he was received into the guild as a master. Any direct connection with Hubert is therefore impossible, and with Jan improbable, as Rogier went from Tournay to Brussels, where, as early as 1436, he was honored by the title of town painter. Rogier was without doubt acquainted with the works of the Flemish school, and endeavored to equal them in fineness of execution and in the study of nature; but the master, after

having acquired his training, did not easily adopt the methods of others. This is evident even from the fact that his sojourn of two years in Italy, 1449 and 1450, had not the slightest perceptible influence upon his later works. The tendencies of his art are entirely different from those of the school of Flanders. He strove after dramatic effect, and, when possible, avoided subjects of much detail and but little action, such as those in which the ability of the Flemish artists was chiefly displayed. He painted by preference scenes from the Passion rather than Madonnas and saints, and paid great attention to pathos of expression and to the direct participation of all the figures in the scene represented. The dignity and beauty which characterized the works of Hubert van Eyck and the quiet tone of those of Jan were equally foreign to his style. His observation of nature was close, but somewhat unsympathetic; his coloring cool. Great as was the pains bestowed upon delicacy and fineness of execution, this was wisely subordinated to the presentation of the idea. These qualities are evident in Rogier's chief production, the Descent from the Cross, in the Escorial, a repetition of which is in the Prado at Madrid. In this effective composition is represented every stage of grief: compassion, the most poignant suffering, swoon, and death. Similar in character are the pictures of the Passion, in Vienna, Florence, and in the Capilla Real at Granada; the Last Judgment, in the Hospital of Beaune; and the Seven Sacraments, in Madrid. What must have been the dramatic power of the Trajan and Herkenbald series of paintings in the Town-hall of Brussels may be judged in some measure by the Burgundian tapestries in the Town Library of Berne. It is not strange that this pathetic element in the art of Rogier obtained for him many pupils and admirers, especially among the Germans.

Side by side with the styles of Flanders and Brabant, still a third is to be recognized in the Netherlands, namely, that of Holland. Our information concerning its beginning is but slight, owing, in great measure, to the more thorough destruction effected in the north-west of the country by the Iconoclasts. We learn, however, of the existence of a school at Haerlem: Van Mander praising among others the landscape backgrounds of Albert van Ouwater, and the works of Gerrit tot S. Jans. To the latter are probably to

be ascribed the *Bewailing of the Christ*, and the *Miracles of St. John* in the Gallery of Vienna; it is worthy of note that in the last picture great importance is assigned to the landscape. To the school of Holland belonged also Dierik Bouts (Dirk van Harlem), who, about the middle of the fifteenth century, established himself at Louvain, where he died in 1475. Still, this removal does not preclude the assumption that his style had been as entirely developed in Holland as that of Rogier in Tournay. Its characteristics are the eminently picturesque treatment of the composition, the somewhat awkward drawing of the figures, and, notably, the fine effects of landscape. His chief work, the *Corpus Christi Altar* in St. Peter at Louvain,—of which the centre piece, representing the Last Supper, is still in that church, while two of the wings are in Munich and two in Berlin,—shows the power of the master as a colorist, and is among the finest specimens of the early art of the Netherlands. Of especial excellence are the panels in Berlin. The same qualities appear in the exquisite triptych in Munich, representing the Adoration of the Magi in the central panel, and St. John the Baptist and St. Christopher in the wings. St. John stands in a sunny mountainous landscape, the perspective effect of which was unequalled even throughout the sixteenth century, and is far superior to the celebrated scenery of Memling's *Seven Joys of the Virgin*. In the picture of St. Christopher, as in the representation of the Israelites gathering manna, of the *Corpus Christi Altar*, an effect of sunset and twilight is attained, compared with which all similar attempts of the period are insignificant. These works are the precursors of the picturesque landscapes of the later Dutch school.

The close of this period was marked by the appearance of Hans Memling. The native place of this artist is unknown, but, from the spelling of his first name, even in official records, it is not improbable that he was a German. After 1478 he worked in Bruges, where he died A.D. 1495,—not as a pauper in a hospital, as tradition has it, but in affluent circumstances. His technical methods, similar to those of Rogier, are combined with an elaboration of details resembling that of the school of Flanders, and with a trace of sentimental idealism akin to that of Cologne. In two artistic qualities he is superior to all his contemporaries, namely, in the attractive gracefulness

and the beauty of form of his figures. These qualities contrast favorably with the somewhat prosaic character of Jan van Eyck, with the dryness and hardness of Rogier, and with the stiffness and awkwardness of Dierik. Although the Madonnas of Memling have much of the grace to be observed in those of Master Stephen of Cologne, and of those of Simone of Siena, and although it is evident from the architectural background of the Shrine of St. Ursula that Memling was well acquainted with Cologne, it is nevertheless certain that he was in nowise dependent upon the artistic methods of that city.

There are few figures more attractive than that of St. Catherine in the central picture of the altar of St. John in the Hospital of Bruges; few of greater loveliness and dignity than the Madonnas of Memling. St. Ursula and her virgins in the shrine of the same hospital are types of chaste maidenliness, the angels scarcely inferior to those of Fiesole. Memling combined an inexhaustible imagination with perfect mastery in the arrangement of the most complicated scenes, as is shown by the so-called Seven Joys of the Virgin in Munich, and the smaller picture of the Seven Sorrows in Turin.

The development of the early painting of the Netherlands reached its greatest perfection in Memling, in whom were combined the peculiar characteristics of the different schools. During the first quarter of the sixteenth century the methods of Memling continued to be practised with but little alteration. His style is evident in the works of Gerard David of Oudewater, the most eminent master of the group immediately preceding Massys and the Northern Renaissance.

As the panel painting of the Netherlands had been developed from illumination, so also did it exercise upon this art a reflex action of much importance. It is not, indeed, susceptible of proof that any one of the great artists devoted his attention to the illustration of books, although miniature painters not uncommonly executed work upon larger panels, or even wall surfaces,—instance the celebrated Simon Marmion. The limitation of the miniatures to body colors, and the nature of the parchment upon which they were painted, did not permit the fine delicacy and the harmonious blending of tones observable in the oil pictures of the Netherlands. Still, excellent works of the kind are to be found in the libraries of Brussels, Paris, and Vienna, the miniatures being generally restricted to

the title or dedicatory picture of the manuscript, but occasionally occurring in great number, as, for instance, in the breviary in possession of the Duke of Bedford, which contains not less than two thousand five hundred illustrations. The finest of these works is the *Breviarium Grimani* in the Library of S. Marco at Venice, the miniatures of which are ascribed, in the records of the year 1521, to Lievin van Lathem and Gerard Horebout.

Reviewing the general situation, in conclusion, it is plain that France, towards the close of the fifteenth century, was deprived of the leading position which it had maintained for more than two hundred years, even as Germany had lost its ascendancy at the close of the Romanic epoch. In architecture, the field of its greatest successes, France was surpassed by Germany; in sculpture, by Italy; and even in illumination, a favored branch in the later times of trivial luxury, by the Netherlands. England attained to a more logical and independent development in Gothic than in Norman architecture, the perpendicular style being a truly national mode of artistic expression, as it was eminently practical, and corresponded well with the peculiar tendencies of the Britons. The art of the burghers of Germany,—in striking contrast to that of the feudal nobles of England,—created its chief monuments in the commercial cities, this being the case not only with architecture, but with sculpture and painting. The greater the interest, however, felt for art among the bourgeois circles, the less was it possible to avoid its becoming industrial in character, and not infrequently degenerating into a mere manufacture. A contrary movement was occasionally observable, artists of real talent and individuality appearing as representatives of the guilds; still, such instances were rare before the end of the fifteenth century.

The countries of the extreme south-west and north of the Continent,—Spain and Scandinavia,—were interesting chiefly in architectural respects. While the Spaniards endeavored to improve upon the Gothic style of the French, through the erection of monuments of grand dimensions and elaborate ornamentation, the Scandinavians did little more than adopt the artistic methods of the North-German Lowlands. The case was the same in Poland, which

was but rarely, and through Silesia, brought into communication with the schools of Central and Southern Germany,—notably that of Nuremberg. The culture of Hungary was almost entirely dependent upon that of the Eastern Mark.

The development of the higher principles of art, during the fifteenth century, was furthered mainly by the Netherlands and Italy, sculpture and painting in these countries not being considered merely as ministers of luxury,—not being assigned merely to guilds of artisans,—but treated with love and pride as exponents of the national character. The painting of the Netherlands, chiefly limited to panels, arrived at a fine and somewhat miniature-like perfection. On the other hand, the art of Italy, alike excellent in all branches, attained in mural painting and in marble sculpture a grander and more monumental character. The superiority of both these countries was so great that all the other parts of Europe were more or less subjected to their influence. The domain of the Netherlands,—extending in Spain to Andalusia and Catalonia, in France to the district of the Rhône, throughout Northern and Western Germany, and even Scandinavia,—was of greater extent than that of Italy, which was limited to Southern Spain, Southern France, and the Alpine regions. Nevertheless, it was plain, before the end of the fifteenth century, which of the two national schools of art was to become of the greater importance. For while in the Netherlands there were but slight indications of a new growth, after the death of Memling and the decline of the earlier traditions, in Italy the Renaissance had been fully entered upon during the lifetime of the last representatives of the artistic conceptions of the Middle Ages. In Germany, even masters of the first rank, who had based their art upon the mediæval methods of local schools, were themselves not able to avoid the introduction of Italian traits. The Netherlands could still less resist these tendencies at a time when their independent importance had been almost entirely lost. This last stronghold of Northern mediæval art having been taken by the Renaissance, those countries which had previously been dependent upon Flanders and Brabant naturally came altogether under the influence of Italy, which in the sixteenth century made itself felt throughout the greater part of the Continent.

GLOSSARY.

MANY of the technical terms introduced into this book have been defined by the translator in the Glossary appended to Dr. Franz von Reber's "History of Ancient Art." New York, Harper & Brothers, 1882.

The words which here follow merely supplement that list, and, in greater part, refer only to the arts of the Middle Ages. Especial attention has been devoted to their etymological derivation. In the case of some words which are often employed in a sense too widely extended to allow of their being used without qualification in careful architectural descriptions, some advance towards precision of definition has been attempted. It has not, however, been thought necessary to deal with words in common usage—such as *basilica*, *battlement*, *column*, etc.—nor with those designations of infrequent occurrence which in the present volume have been explained in the text, such as *Cosmatic work*, having its name from the decorative methods of the sculptor *Cosmos*, the names of the many varieties of Indian monuments, the divisions of the Mohammedan mosque, and the like.

Abut'ment (Fr. *aboutement*, from *abouter*, to touch at one end). That part of a wall, pier, or other mass of masonry which serves to support the thrust of an arch or vault.

Aisle (Old Fr.; from Lat. *ala*, wing). The longitudinal division of the body or transept of a church.

Am'bo (late Lat.; from Gr. *ἀμβων*, a raised stage, a reading-desk). A pulpit in the choir, from which the sacred writings are read.

Antepen'dium (Low Lat.; from *ante*, before, and *pendere*, to hang). A hanging or screen with which the front of an altar is covered.

Apse (Gr. *ἀψίς*, the fellow of a wheel; an arch; a vault. The form *apsis* should be restricted to the astronomical term). A recess of semicircular or polygonal plan, especially at the end of the choir, aisles, or transept of a church, commonly vaulted with a conch.

Architrave (from Gr. *ἀρχός*, chief, and Lat. *trabs*, beam). The lowest division of the entablature, the epistyle.

Archivolt (from Lat. *arcus*, arch, and *voluta*, vault). A curved architrave, the concentric mouldings of which border the face of an arch.

Ash'lar (derivation uncertain. F. Mueller suggests Lat. *assula*, a small board, chip, or block, through Prov. *asclar*, to split. Otherwise: Lat. *axilla*, armpit, through Fr. *aiselle*, coming into technical use as *aiseler*). A squared building-stone, particularly when employed for the revetment of a mass of coarser masonry.

Bai'ley (Old Fr. *baille*, barrier, palisade, from Lat. *ballium*, corruption of *vallum*, rampart, from *vallus*, stake). An open court within a fortified castle; particularly the space between the enclosing walls and the keep-tower.

Bar'bacan (of uncertain Oriental origin. Col. Yule suggests Arab. Pers. *bab-khanah*, towered gate-way. Word introduced into Western Europe after the Crusades). A watch-tower. An advanced work before the

entrance to a castle or other fortification, particularly a double tower above a gate or the abutment of a bridge.

Bar'rel-vault. A semi-cylindrical vault, springing from two parallel walls; so called from its resemblance to the interior surface of a barrel, split lengthwise.

Bar'tizan (apparently first used in its present form by Sir Walter Scott, corruption of brattice, a parapet; Old Fr. *bretesche*, from Germ. *Brett*, a board). A small overhanging turret; battlemented, and generally projecting from an angle of the upper part of a tower.

Bas'tion (Fr.; from *batir*, to build; Ital. *bastione*, from *bastire*). A rampart, bulwark, or tower projecting from the face of a fortification; particularly an earthwork of irregular pentagonal plan, faced with masonry.

Bead. In architectural usage a small moulding, the profile of which is an arc equal to, or greater than, a semicircle.

Billet-moulding. A Romanic ornament, consisting of a moulding so cut as to resemble a series of short, round sticks, spaced at regular intervals.

Bisect'ed (barrel) vault. A vault with but one impost, the crown of which abuts against a wall. It has the form of one quarter of a cylinder, divided lengthwise.

Blind'story. A term applied to a closed triforium,—in contradistinction to the open and light clerestory.

Bol'tel. An upright round moulding; particularly a round shaft engaged to a clustered pillar. So called from its resemblance to the shaft of an arrow.

Brass. In monumental usage, a plate of brass, or other metallic alloy, inlaid in the stone pavement or walls of a church, and having engraved upon it an inscription, effigy, armorial bearing, or other device relating to the person commemorated.

But'tress (from Fr. *bouter*, to thrust). A pier engaged to a wall for the purpose of increasing its strength; chiefly employed as an abutment.

Ca'ble Mould'ing. A round moulding or bead, cut in imitation of the twistings of a rope.

Campanile' (Ital.; from *campana*, a bell, so called from Campania, a province of Italy, where bells are said to have been first used in churches). A bell-tower.

Can'tilever (derivation uncertain, perhaps from Old Fr. *cant*, angle, and *lever*, to raise; Lat. *canterii labrum*, lip of rafter, has also been suggested). A console or bracket of great projection, used to support eaves, balconies, etc.; necessarily of wood or iron.

Cent'ring. A framework of wood, employed as a temporary support in the construction of vaults and arches.

Champlevé enam'el (from Fr. *champ*, field, and *lever*, to raise, to remove). Enamel upon an indented ground.

Chan'cel (Lat. *cancellus*, a lattice). Properly speaking, the screen or railing which separates the choir from the body of the church; in ordinary usage, the choir itself.

Chapter-house, or hall (from Lat. *capitulum*, dim. of *caput*, head). The building or apartment in which the monks or canons of a monastic establishment, or the dignitaries of a church, meet for the transaction of business.

Chev'ron (Fr.; from *chevre*, Lat. *capra*, a goat, applied to rafters and to the bars of this decoration, from their resemblance to rearing and butting goats). A zigzag moulding, peculiar to the Romanic style.

Chiarosen'ro (Ital.; from *chiaro*, light, and *oscuro*, dark). A term applied to effects of light and shade in painting.

Choir (Gr. *χορός*, a dance in a ring, a chorus). In its literal sense, that part of the church fitted up for the singers; since the Middle Ages, however, the word has come to denote the enclosed space appropriated to the use of all those engaged in the performance of the ecclesiastical ceremonies: commonly the extension of the nave upon the east of the transept.

Cibo'rium (Lat.; from Gr. *κιβώριον*, a cup resembling in shape the seed-vessel of the Egyptian bean). A receptacle for relics, or for the pyx; also the pyx itself. In architectural usage, the canopy over a high-altar.

Cinquecento (Ital.; from It. *cinqve*, five, and *cento*, hundred; literally, five hundred, but used for fifteen hundred). The sixteenth

century, a word particularly employed with reference to the civilization and style prevalent in Italy at that time.

Cloisonné enamel (Fr. ; from *cloisonner*, to partition). An enamel partitioned by threads of metal soldered upon the ground.

Cloister (from Lat. *claustrum*, an enclosure, from *claudo*, to shut). In architectural usage, arcades arranged around three or four sides of a quadrangular area, forming the inner court of a monastery or collegiate establishment.

Columbarium (Lat. ; a pigeon-house). A small recess in the wall of a catacomb or other sepulchral chamber, intended to receive an urn containing the ashes of the deceased. So called from its resemblance to a pigeon-hole.

Compartment. In special architectural significance, the space covered by one cross, or composite vault, whether bordered at the side by two or by a greater number of supports. In a general sense, any surface bordered by architectural members.

Conch (from Gr. *κόγχη*, a marine shell). The semidome of an apse.

Con'sole (Fr. ; from Lat. *con*, with, and *sublevo*, to lift up). A bracket ; particularly one having for its outline a curve of contrary flexure.

Cor'bel (Old Fr., Ital., and Low Lat. *corbella*, from Lat. *corbis*, basket). A term peculiar to mediæval architecture, denoting a stone or end of timber, projecting from the vertical face of a wall as a bracket.

Corbel-table. A projecting cornice or parapet, supported upon a series of corbels.

Cramp. In architectural usage, an iron, both ends of which are bent to a right angle ; used to fasten stones together.

Cre'nel (Old Fr. ; from Lat. *crena*, a notch). An open space between two upright piers of a battlement.

Croek'et (from Fr. *crochet*, dim. of *croc*, a hook). A projecting leaf, flower, or bunch of foliage, used in Gothic architecture to decorate the inclined angles of spires, pinnacles, gables, etc.

Cross-vault. A vault above a square plan, formed by the intersection of two barrel-vaults.

Crypt (Gr. *κρύπτη*, from *κρύπτω*, to hide).

A subterranean vaulted story beneath a building, particularly beneath a church.

Cusp (from Lat. *cuspis*, a point). A projection formed by the intersection of two foils or curves, particularly in Gothic tracery.

Damaskeen' (from Fr. *damasquiner*). A surface ornamentation of a metal, particularly iron, consisting of an incrustation of another metal, as gold or silver. So called from the city of Damascus, where the art was chiefly practised.

Diagonal rib. A rib crossing the compartment of a vault from opposite angles.

Diaper (Fr. *diapré*, *diaprer*, to variegate, to diversify with figures ; Ital. *diaspro*, jasper, a stone much used in inlaying ; Low Lat. *diasprus*, a fine colored cloth). A surface decoration consisting of the repetition of any pattern in small compartments of the same shape, usually square.

Diptych (Gr. *δίπτυχος*, from *δίς*, twice, and *πύσσω*, to fold). Folding-tablets of two leaves,—whether of ivory, overlaid on the inner side with wax as writing-tablets, or of panels of painted wood, as altar-pieces.

Discharg'ing arch. An arch turned in the body of a wall, to relieve a lintel or any part of the masonry below it from a part of the superincumbent weight.

Dor'mer (from Lat. *dormio*, to sleep ; literally, the window of a sleeping-room). A window pierced through a sloping roof, and framed by a small independent structure which rises vertically from the inclined surface.

Dor'sel (from Lat. *dorsum*, back). A hanging of tapestry upon the walls of a hall or of the choir of a church. So called from being placed behind the seats or choir stalls.

Dow'el (Fr. *douille* ; late Lat. *ductile*, from *duco*, to lead). A pin of wood or iron, employed to unite two adjacent blocks.

Drum. In architectural usage, the vertical walls, of circular plan, which support a dome. The term is also applied to the separate, cylindrical stones which form the shaft of a column.

Embras'ure (Fr. ; from *braser*, to slope the edges of an opening). A narrow opening

in the wall or parapet of a fortification, splayed for the purpose of facilitating the discharge of a missile ; a crenel.

Engaged' column. A term applied to a shaft, in plan an arc less than a full circle, which adjoins the surface of a wall or pier.

Extra'dos (from Lat. *extra*, without, and *dorsum*, back). The exterior or back of an arch, the top of the voussoirs, as opposed to the inner surface, which is known as the soffit or intrados.

Fan-vaulting. A kind of vaulting in which a number of ribs, rising from one impost point, have the same curve, and diverge equally in every direction.

Fin'ial (from Lat. *finio*, to end). A knob of foliage, or other ornament, employed as the termination of a spire or pinnacle.

Fly'ing buttress. A support having the form of a rampant arch, and serving to transmit the thrust of a vault or dome to a buttress or other abutment.

Foil (from Lat. *folium*, a leaf ; hence, trefoil, quatrifoil, cinquefoil, multifoil, etc.). The small arcs or other curves in the tracery of Gothic architecture.

Folia'tion (Lat. *foliatio*, from *folium*, leaf). An arrangement of small arcs, or foils, separated by projecting points, or cusps, chiefly employed among the ornaments of Gothic tracery.

For'meret (Fr. ; from Lat. *forma*, form). In the groining of Gothic vaults that rib which, in its entire length, adjoins the wall.

Fret (Anglo-Saxon *fract*, ornament, or Fr. *freter*, to interlace). An ornament formed by a series of intersecting straight lines, generally at right angles.

Front'al (Lat. *frontale*, from *frons*, the brow). An antependium, which see.

Ga'blet. A small ornamental gable, formed over a portal, tabernacle, buttress, etc.

Goua'che (Fr. ; from Lat. *vadum*, shoal, wash, through Ital. *guazzo*). A kind of painting in body colors, the medium being water and thick gum, with the occasional addition of honey.

Gre'oin (Icel. *greina*, to branch or fork off ; Dan. *green* ; Swed. *gren*, a branch). In ar-

chitectural usage, the angle formed by the intersection of vault surfaces.

Guil'loche (said by Littré and others to be from the name Guillot, or Guilloche, of a workman who was the first to employ the pattern in modern times ; according to Worcester, Fr., from Gr. *γυῖον*, a limb, and *λόχος*, ambush, for which he gives the incorrect and misleading translation, "snare"). A classical ornament consisting of two or more fillets intertwined in a wavy line, so as to form a continuous band, and leave between them a series of small circles.

Hau'telisse (Fr. *highwarp*, from Lat. *licium*, thread, warp). Tapestry wrought with an upright warp.

Hip. In architectural usage, an external angle formed by the intersection of two sloping roof-surfaces, the wall-plates of which run in different directions.

Im'post (from Lat. *impono*, to lay upon). That cornice, course of wall masonry, bracket, or block upon which rest the lower stones of an arch or vault.

In'trados (from Lat. *intra*, within, and *dorsum*, back ; many lexicographers refer the word to the Spanish *intrados*, an entrance). The under inner surface or soffit of an arch, as opposed to extrados.

Lan'tern. In architectural usage, a small structure with apertures for the admission of light, surmounting a dome or vaulted compartment.

Lec'tern (Low Lat. *lectrinum*, from *lego*, to read). A desk or stand upon which are placed the large books read in the services of the church.

Lin'tel (Old Fr. ; from Low Lat. *lintellus*, *limitellus*, dim. of *limes*, boundary, perhaps through confusion with *limen*, threshold). A horizontal beam of timber or stone placed above an opening in a wall, or an intercolumniation.

Log'gia (Ital. ; from Low Lat. *lobia*, a gallery, formed from Old High Germ. *louba* ; Germ. *Laube*, arbor). A covered space in a building, one or more of the sides of which are open to the air by colonnades or arcades.

A term generally restricted to civic and especially palatial architecture.

Lou'ver (Old Fr. *l'ouvert*, from *ouvrir*; Lat. *aperire*, to open). A small lantern or turret surmounting the roof of a hall or other apartment, with openings for ventilation.

Lou'ver-boards. A series of horizontal slabs slanting outward, so as to admit air but exclude rain, placed in the windows of louvers, belfries, drying-lofts, etc.

Lunette Fr.; dim. of Lat. *luna*, moon). A subsidiary vault intersecting with a main vault or dome, and having its crown upon a lower level. Such is, for instance, the vault leading from a main compartment to a vertical window opening, or to a low wall-arch. So called from the crescent shape of the groin.

Machicola'tion (Fr. *mâchicoulis*, from *mâche*, melted matter, and *coulir*, to flow). An opening at the top of a fortification wall or tower, formed by projecting the parapet upon corbels, and leaving openings in the soffit of the cornice or arched table. Hence the projecting cornice thus formed.

Mer'lon (Fr. *merla*; Ital. *merlo*, from a diminutive form of *murus*, wall). One of the piers of masonry which form a battlement, and have between them the open spaces or crenels.

Modil'lon (Fr. *modillon*, from Lat. *modulus*, dim. of *modus*, measure. So called from their regular spacing). A small console employed as a support beneath the corona of classic Roman cornices.

Mull'ion (corrupted from early English *munion*; Fr. *moignon*, stump, blunt end; Lat. *moncus*, stump of an arm or leg cut off. Wedgwood remarks that the mullion took its name from having been regarded as a stump of the dividing shaft which breaks up into the tracery of the upper part of the window. The explanation and etymology are alike open to question). A slender upright shaft, forming a division between the openings of Gothic windows, screens, etc.

Nar'thex (Gr. *νάπηξ*, a casket, a shrine). A vestibule or porch within the early Christian church, in which catechisms were repeated, and to which catechumens and penitents

were admitted; generally separated from the rest of the building by an arcade or screen.

Nave (Old Fr., Ital., and Span., literally ship; Lat. *navis*; in German, technical use exactly rendered by *Schiff*). The central division of the body of a church, extending, upon the west of the choir, from the chancel to the main entrance.

Niel'lo (Ital. from late Lat. *nigellum*, black enamel, from *nigellus*, dim. of *niger*, black). A method of ornamenting metallic surfaces by engraving upon them lines which are subsequently filled in with a black composition.

Nog'ging (related to Dan. *knag*, a peg of wood; Dutch, *knog*, a yard-arm). A construction in which brick or light rubble masonry is laid between the timbers of a wooden framing.

Oast (Anglo-Sax. *ast*, a kiln). A kiln for drying hops.

O'riel (Old Fr. *oriol*, a porch, a gallery; Low Lat. *oriolum*. Etymology doubtful, possibly from Lat. *aureolum*, gilded, *aurum*, gold; others suggest the Anglo-Sax. *ofer-helan*, to cover over; others derive it from Lat. *aurum*, the ear; others still suppose it to be derived from *oriens*, the East). A window projecting from an upper story, and supported, not upon the ground, as a bay, but upon brackets.

Pendentive (Fr. *pentifif*, from Lat. *pendero*, to hang). A triangular curved surface of a domed ceiling, situated in the corner of a building of straight-lined plan, between the extrados and below the crowns of the main arches. In Gothic architecture, that portion of a groined vault supported by one pillar or impost, and bordered by longitudinal and transverse ribs.

Pin'nacle (Fr. *pinacle*, Low Lat. *pinnaculum*, from *pinna*, feather). A slender subsidiary spire rising above the adjacent parts of the building.

Pres'bytery (Gr. *πρεσβυτήριον*, from *πρεσβυς*, an old and reverend man. The word priest is from the same root). That part of the church occupied exclusively by those engaged in the performance of the religious service, comprising the choir and in some cases the adjacent portions of the building.

Pur'lin (etymology uncertain, perhaps from Fr. *par*, through, and *ligne*, line). A horizontal timber resting upon the main rafters of a roof.

Quattrocen'to (Ital.; from *quattro*, four, and *cento*, hundred; literally, four hundred, but used for fourteen hundred). The fifteenth century. Compare *Cinquecento*.

Quoin (Fr. *coin*, a wedge, a corner; from Lat. *cuneus*, wedge). A term applied to any external solid angle of a building, particularly to the projection formed by ashlar stones, with faces raised from the surface of the wall, which are employed at the corners to strengthen the masonry.

Ram'pant (from Fr. *ramper*, to creep, to climb; from a middle High Germ. root, Bav. *rampfen*, to spring, to snatch). May, in architectural usage, be applied to an arch or vault whose impost and abutment are not on the same level.

Relief'ing arch. See *Discharging arch*.

Rere'dos (Fr. *arrière-dos*, from *arrière*, behind, and *dos*, Lat. *dorsum*, back). In Gothic architecture, a screen placed behind the altar.

Retic'ulated vault (from Lat. *reticulum*, dim. of *rete*, net). A Gothic vault, the complicated ribs of which resemble a geometrical net-work.

Rib. In architectural usage, a projecting moulding following the line of any groin, or the intersection of vaulted surfaces.

Rood (Anglo-Sax. *rôd*, beam, cross; Lat. *rudis*, wand, from Sanscr. *ridh*, to grow). A cross, crucifix, or figure of Christ; especially a crucifix placed at the entrance to the choir in mediæval churches.

Rood'-beam,—rood-loft. A transverse beam or gallery upon which the rood is placed; generally situated at the juncture of the nave and choir above the chancel screen.

Rood'-tower, rood-steeple. Terms applied to the tower or steeple erected above the intersection of transept and nave in a cruciform church.

Rose'-window. A circular window divided into compartments by radial bars or tracery.

Rub'ble (from *rub*). Coarse masonry constructed of small unhewn stones set in thick mortar.

Sgraffit'to (Ital. *scratched*). An ornament produced by scratching lines through a thin coating of plaster, or tinted wash, so as to reveal the contrasting color of a prepared ground.

Span'drel (apparently unconnected with span; recent form of *splaudrel*, from Old Fr. *esplanader*, to level; Lat. *explanare*, from *ex* and *planus*, plain, level). The space of irregular triangular shape between the extrados of two arches and a horizontal cornice above their crowns; or between the extrados of an arch, the horizontal cornice above its crown, and a perpendicular line from its impost.

Splay (abbreviated from *display*). A bevelled surface. This term should be restricted to the jambs, lintels, and sills of windows or doors which are slanted for the purpose of enlarging the aperture, or increasing the light passing through it.

Squinch (same root as *sconce*; old Fr. *esconse*, a screen, shelter, from Lat. *abscondo*, to hide). An arch of stepped projection, employed in the place of pendentives to support the alternate sides of an octagon formed above a square.

Staff-work. See *Billet-moulding*.

Stalac'tite vault. A vaulted surface decorated by a series of overhanging projections, presenting a fanciful resemblance to stalactites.

Stellar vault (Lat. *stellaris*, from *stella*, a star). A Gothic vault, the complicated ribs of which resemble the geometrical forms of a star.

Stilted. In architectural usage, a term applied to an arch or vault, the curve of which does not begin from the impost, but is elevated upon a vertical continuation of the intrados and archivolt mouldings.

String'-course. A narrow horizontal plinth or band of projecting mouldings.

Supermull'ions. The upright bars, or mullions, above the commencement of the foliation in the upper part of a Gothic window or screen.

Sur'based. A term applied to an arch or

vault of which the height of the curve above the level of the impost is less than one-half its span.

Surmount'ed. A term applied to an arch or vault of which the height of the curve above the level of the impost is greater than one-half its span.

Thrust. In special architectural signification, the lateral pressure exercised by the stones of an arch or vault.

Trac'ery (from Fr. *tracer*; Low Lat. *trac-tiare*; Lat. *traho*, to trace). The ornamental open-work of curved and intersecting lines in Gothic windows, screens, etc.

Tran'sept (from Lat. *trans*, across, and *septum*, enclosure). The transverse portion of a cruciform church forming the division between the nave and the choir. Any part of a church projecting at right angles from the body, and equal, or nearly equal, to it in height.

Tre'cento (Ital.; from *tre*, three, and *cento*, hundred; literally, three hundred, but used for thirteen hundred). The fourteenth century. Compare *Cinquecento*.

Trifo'rium (Lat.; from *tres*, three, and *foris*, door, so called from the openings hav-

ing at first been combined in groups of three). A gallery or passage-way above the vaulting of the side aisles of a church, opening towards the main aisle through arcades or windows. Hence, also, the blind arcades or tracery beneath the clerestory windows, which occasionally took the place of these openings.

Trip'tyeh (Gr. *τριπτυχος*, from *τρεις*, thrice, and *πτύσσω*, to fold). Folding-tablets of three leaves,—whether of ivory, overlaid on the inner side with wax, as writing-tablets, or of panels of painted wood, as altar-pieces.

Vault'ing-post, or shaft. A small engaged shaft which supports the ribs of a vault; generally a boltel resting upon a corbel or other projection.

Vous'soir (Fr.; from *vousser*, to arch; Lat. *volvo*, to roll, to vault). A stone shaped like a truncated wedge, forming part of an arch or vault. The central uppermost voussoir is termed a key-stone; the lowest, adjoining the impost, a springer.

Wall-arch. That portion of a vertical wall,—of round or pointed-arch shape,—which rises above the imposts of a cross-vault, lunette, or Gothic compartment.

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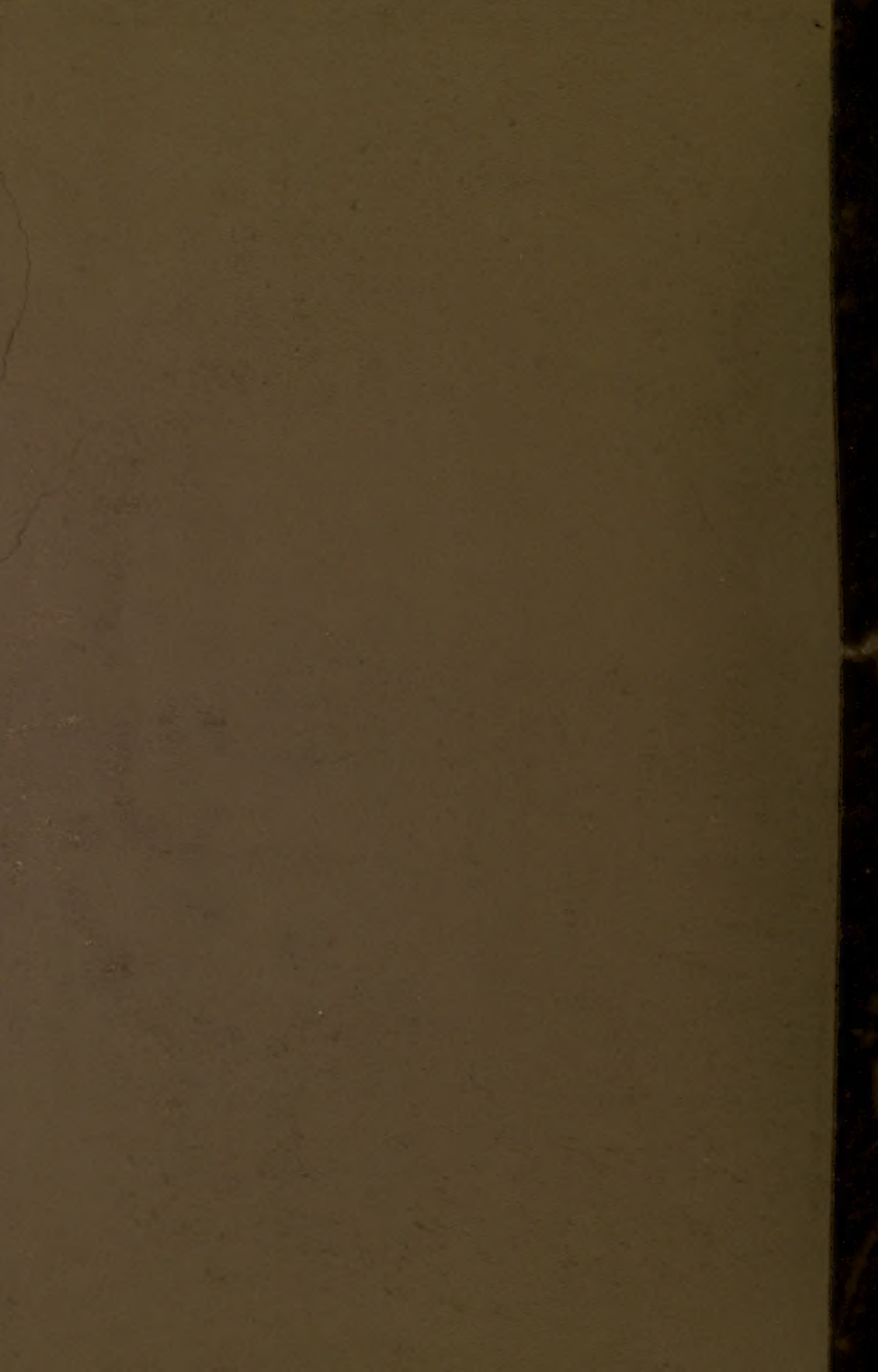
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